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ABSTRACT

This study attempted to demonstrate the potential value of the Naval Occupational Task Analysis Program (NOTAP) for its use in the design and development of training programs, courses, and curricula. The emphasis was focused on its application to the training programs for the Aerographer's Mate (AG) rating. Selected occupational data printouts were retrieved from NOTAP and interpreted in line with the framework for an AG program. It was recommended that the procedure of the study be used by the Chief of Naval Training as a basis for developing advanced programs. The examples of NOTAP computer printouts, format for task analysis and training program design were listed in the appendix. (CH)

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NAVAL PERSONNEL RESEARCH AND DEVELOPMENT LABORATORY

WTR 73-34

JUNE 1973

INTERPRETATION AND TRAINING USES OF COMPUTER PRINTOUT DATA OF NAVAL OCCUPATIONAL TASK ANALYSIS PROGRAM (NOTAP)

James H. Swann

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Work Unit No.
(TDP P43.07X.A1.31W)

James H. Swann

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FOREWORD

This is one of a series of investigations accomplished under Advanced Development Objective 43-07X, which identifies the operational need to develop a Navy occupational data bank. The need to use the data bank for such pusposes as outlining career development patterns is emphasized in the ADO. The current study directly related to this need since it involves the use of computerized occupational data in designing training programs and curricula, using the Aerographer's Mate (AG) rating as an example.

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SUMMARY

Problem

There is a need to change the focus of Navy enlisted training in order to meet the operational and technical requirements for improved performance of personnel in assigned jobs. More specifically, there is a need that all Navy training be totally job-relevant. This points up the requirement for a structuring of all training programs and basing all curricula and courses upon a thorough and meticulous analysis of duties and tasks to be performed by the trainees in order to meet that need.

Objective

This problem and advanced technology have imposed greater needs today than ever before for improved and rapid identification and dissemination of naval occupational information. The Naval Occupational Task Analysis Program (NOTAP) includes a job task analysis procedure in which the duties and tasks of all Navy billets are being identified and computer data collected. These data: (1) identify jobs, duties, and tasks of each rating, and (2) provide a basis for the selection of jobs and tasks for which training should be conducted. The objective of this study is to determine the extent to which NOTAP computer data can be used most effectively in the design and development of training programs and curricula.

Background

The Navy enlisted occupational data bank is a proposed management information system which is currently undergoing feasibility testing as part of an advanced development program. The system utilizes a computer for processing and storing occupational information and is programmed so that information can be retrieved in a variety of formats to serve a variety of purposes in Navy personnel management and training functions. Basic to the operation of an occupational data bank is a comprehensive task analysis program which features the gathering of occupational data by means of task inventory booklets (questionnaires) sent to statistically valid samples of enlisted men in various ratings throughout the Navy. The Navy's interest in occupational analysis was reinforced by the recommendation of a Task Force on Navy/Marine Corps personnel retention to conduct occupational analysis research -- a recommendation the Secretary of the Navy subsequently approved. In addition, the Chief of Naval Training has declared that all naval training be based on the tasks to be performed by the trainee. Data have been gathered on the Aerographer's Mate (AG) rating and results published in a report of April 1972. The contents of the report were general in nature, however, rather than specifically related to training. NOTAP computer printouts for the AG rating appropriate for training purposes were reviewed in the conduct of this investigation.

Approach

Identified selected occupational data printouts retrieved from the occupational data bank in terms of their potential value for developing training programs and curricula for the Aerographer's Mate (AG) rating.

Interpreted selected data in order to provide a meaningful relationship to the design and development of training programs, curricula, and courses.

Designed the framework for an AG rating program and format of one element (curriculum) of the program.

Findings

Occupational survey data are useful in the design and development of training programs related to the AG rating. (Page 3)

Conclusions

1. Standard procedures for translating occupational survey data into practical training instruments are required. (Page 9)

Recommendation

1. Procedures for interpretation and use of NOTAP data (Appendix A) be used by the Chief of Naval Training as a basis for standardizing procedures for the re-design and development of NOTAP based training programs, courses, and curricula. (Page 11)

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I. INTRODUCTION

A. Problem

There is a need to change the focus of Navy enlisted training in order to meet the operational and technical requirement for improved performance of personnel in assigned jobs. The problem of this study was to interpret the computer printouts of the Naval Occupational Task Analysis Program (NOTAP) in terms of their use in the design and development of training programs, courses, and curricula. Thus, focus training on job performance.

B. Objective

Advanced technology has imposed greater needs for improved and rapid identification of occupational information about Navy jobs. There is under development in the Navy, a management system designated as the Naval Occupational Task Analysis Program (NOTAP). This program includes a job task analysis program in which the duties and tasks of all Navy billets are being identified, and computer data collected with respect to such factors as the percent of personnel performing duties and tasks and the average percent of time spent by personnel in performing duties and tasks. These data are being used as a basis for the development of job-relevant training courses and curricula. That is, the learning experience provided for students will be directly and explicitly related to the duties and tasks they will be required to perform in their Navy assignments. The objective of this study was to make more effective the use of NOTAP computer printout data - using the AG rating as an example - in the re-design and development of training programs, courses, and curricula.

C. Background

This report on the interpretation and training use of computer printouts of the Naval Occupational Task Analysis Program (NOTAP) as applied to the AG rating, represents a sub-project of NOTAP. The Navy's interest in an occupational analysis system was emphasized by a task force on Navy/Marine Corps personnel retention. This task force recommended occupational analysis research and the Secretary of the Navy approved the recommendation:[1] Exploratory Development research in the area began in 1967 and was extended to advanced development in 1969.

Under advanced development, research has emphasized the application of techniques previously developed by other branches of the U. S. Armed

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[1]Secretary of the Navy's Task Force on Navy/Marine Corps Personnel Retention. Report of Vol. 1, Department of the Navy, Washington, D.C. January 1966.

Forces and the Canadian Armed Forces. Current research is focused on the 18 Group IX aviation ratings including the Aerographer's Mate (AG).

Data were gathered on this rating and some of the results were presented in a report of April 1970.[2] However, the content of this report was general in nature rather than specifically related to training. All NOTAP computer printouts for the AG rating, appropriate for use for training purposes are discussed in the current report.

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[2]Naval Personnel Research and Development Laboratory, A Preliminary Report on the Analysis of the Aerographer's Mate (AG) Occupational Data, Washington, D. C.: April 1972.

II. APPROACH

A. Methodology

1. Operational Requirement. This requirement has been stated by the Chief of Naval Training in a policy statement to the effect that "all training programs shall be structured, and all curricula and courses based upon a thorough and meticulous analysis of the duties of tasks to be performed by the trainees, to the end that all Navy training is totally job-relevant."[3]

The operational requirement is also inherent in the current need to conduct Navy training (a) with maximum effectiveness so that course objectives may be met and (b) so that it will be efficient to the degree that objectives are attained with minimum time and cost. The above two requirements dictate that available information such as NOTAP job task analysis data be used in the most effective manner so that these data will contribute to these requirements. This report shows how this may be accomplished.

2. Approach

a. Hypothesis. Based on the operational requirements, it was hypothesized that an interpretation of the Naval Occupational Task Analysis Program (NOTAP) computer printouts in terms of training use would make them more effective in the development of Navy training programs, courses of study, and curricula.

b. Approach. The descriptive method of research was employed which included (1) the design of a framework of a training program and the format of an element of the program (training curriculum), and (2) a description of how to interpret and use the NOTAP computer printout data in the design of a training program and in the construction of a curriculum. The AG rating was used as an example. The results of this approach are presented in Appendix A with three attachments, A, B, and C.

B. Procedure

1. General. The approach required the following procedures:

a, The selection of NOTAP computer printouts containing data that are applicable to training program design and training curricula construction (see Appendix A, Attachment A for sample pages of selected printouts).

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[3]Chief of Naval Training, CNTINST 1540.1, Code 0172. Pensacola, Fla. 26 May 1972.

b. An interpretation of the structure and content of data in each kind of computer printout and how these data may be used in the design and construction of a curriculum. (See Appendix A for this interpretation.)

c. Construction of an example of a training program design (see Appendix A, Attachment B) in order to show how the NOTAP computer printouts discussed in Attachment A may be used as a basis for this design.

d. Construction of an example of a training curriculum for a course (see Appendix A, Attachment C) in order to show how the NOTAP computer printouts discussed in Attachment A may be used in the construction of a curriculum. A curriculum that shows the specific jobs and tasks, of the rating, identified by NOTAP printouts, and to show how training conducted in accordance with the curriculum will meet the policy requirement of the Chief of Naval Training which was previously stated in the operational requirement. This policy states that "all training programs shall be structured and all curricula and courses based upon a thorough and meticulous analysis of the duties and tasks to be performed by the trainee, to the end that all Navy training is totally job-relevant."

2. Appendix A, Interpretation and Use of NOTAP Computer Printouts in the Design and Development of Navy Training Programs. This appendix was developed by a comparison of the types of data found in the computer printouts in Attachment A with the requirements of the example of a training program design (Attachment B) and with the example of a format of curriculum for a course (Attachment C). The requirements indicated a need to show how the jobs, duties and tasks identified and selected by NOTAP computer printouts would be used specifically as a basis for the design and development of a training program, course, and curriculum. This need led to the requirement that Appendix A present (1) an interpretation of the structure and content of NOTAP computer printouts and (2) how valid jobs and tasks may be selected for training purposes, from the total jobs and tasks of the rating found in NOTAP printouts.

3. Attachment A, (to Appendix A), Sample Pages of NOTAP Computer Printouts for Use in Design and Development of Navy Training Programs, (Aerographer's Mate, AG). The NOTAP computer printouts - represented by samples of pages from the printouts - found in Attachment A were selected as being useful for training purposes; because these printouts provide specific data for use by training designers in making decisions with respect to four crucial factors:

a. The job and tasks, of the total jobs and tasks of a rating, identified by NOTAP printouts which should be selected for formal and on-the-job training.

b. The personal and technical background, and current assignments of personnel of the rating.

c. Worker characteristics of jobs. That is, the physical, mental, and leadership requirements of jobs of the rating.

d. Operational equipment for which training will be conducted.

4. Attachment B (to Appendix A), Example of Training Program Design (Aerographer's Mate, AG). This attachment was based on the concept that the general framework of a training program should be designed as a basis for the design and development of its element (courses and curricula). (See definition in Appendix A, item 2s Training Program Design.)

This attachment is used in this report to show how NOTAP computer printouts are used in the design of a training program. As examples, the scope of the training program is conditioned by the jobs identified by the NOTAP "Diagram Task Similarity Matrix," and the content (number of courses) of the program is conditioned by the complexity of tasks, and the kind and number of tasks applicable to each grade.

5. Attachment C (to Appendix A), Example of the format for "Task Analysis (NOTAP) Based Curriculum for Course II, Aerographer's Mate - Advanced Technical". The procedure used in the development of this attachment consist of the design of the format of a curriculum in which the following aspects of the NOTAP computer printouts of Attachment A of Appendix A could be shown and used:

a. Jobs identified by the "Diagram of Task Similarity Matrix". (See II. SCOPE in Attachment C to Appendix A.)

b. The break-down of selected NOTAP duty tasks into task elements. (See III. DUTY TASK ANALYSIS in Attachment C to Appendix A.)

c. The use of jobs, duty tasks, and elememts of duty tasks to write learning objectives which specifically relate what students do in the learning situation, to jobs and duty tasks which students will be required to perform in their Navy operational assignments. (See IV. COURSE CONTENT in Attachment C to Appendix A.)

A crucial training element of a learning objective is the "Training Task". This element specifically states what students must do and know in the learning situation in order to perform each element of the duty task, and in turn the job to which tasks are related. Included in the learning objective is the performance on specific operational equipment selected from the NOTAP "Equipment VARSUM". (See Attachment Ahl.)

III. DISCUSSION

A. General

The interpretation of NOTAP computer printouts in Appendix A in terms of their use in the design and development of training programs provide a standard procedure for translating NOTAP task analysis data into practical training instruments such as training programs, courses of study, curricula and lesson plans.

Attachments B and C to Appendix A are not a complete training program or curriculum. Rather, they show the framework within which NOTAP jobs and duty tasks may be used as a basis for the design of a training program and curriculum which will insure job oriented training and thus job qualified students based on NOTAP data.

B. Results

The results of this investigation are presented in Appendix A as proposed procedures to assist personnel of Navy training activities in the re-design and development of training programs and curriculum in accordance with the policy of the Chief of Naval Training as stated in CNTINST 1540.1 of 26 May 1972.

IV. FINDINGS

Based on the operational requirement of the Chief of Naval Training that all naval training be based upon tasks to be performed by the trainee to the end that the training is job-relevant, and in addition, the requirement that NOTAP computer printout data be effectively and efficiently used in order to meet the operational requirement, it was found that:

1. the design and development of training programs, courses, and curricula as shown in Attachments B and C to Appendix A will insure that Navy training will be based upon jobs and tasks identified and selected by NOTAP data and therefore, will be job-relevant (page 3).

V. CONCLUSIONS

As evidenced by the findings and results of the investigation, it was concluded that:

1. the interpretation of NOTAP computer printouts in Attachment A to Appendix A verified the hypothesis that an interpretation in terms of their uses for training purposes will make NOTAP more effective by:

a. providing a selected list of printouts that are most appropriate in the design and development of training programs, courses of study, and curricula. (Page 9.)

b. clarifying the meaning of printout data and how these data may be used in the design and development of training programs. (Page 3.)

c. providing a framework of a training program (Attachment B to Appendix A) and the format for a training curriculum (Attachment C to Appendix A). These two attachments will illustrate to training designers at Navy training activities, a way to insure that training programs, courses, and curricula will be specifically based upon jobs and duty tasks identified by the NOTAP/CODAP System. (Page 9.)

VI. RECOMMENDATIONS

Based on the findings and conclusions, it is recommended that:

1. Appendix A with attachments be tested and refined for operational acceptance by cognizant personnel of the Chief of Naval Training and the Chief of Naval Technical Training. (Page 11.)

2. After operational acceptance and refinement, Appendix A with attachments be used as a basis for standardizing the procedures for the re-design and development of NOTAP based training programs, courses, and curricula. (Page 11.)

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APPENDIX A

INTERPRETATION AND USE OF "NOTAP" COMPUTER PRINTOUTS IN THE DESIGN AND DEVELOPMENT OF NAVY TRAINING PROGRAMS

(This is a discussion of the samples of "NOTAP" computer printouts in Attachment A to this appendix)

PREFACE

This appendix with attachments presents basic elementary concepts for use by personnel of Navy training activities who may not have had experience in reading NOTAP computer printouts, or in the design and development of training programs based on NOTAP data.

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1. Introduction

Work arises because of the need for the production of goods, the performance of services, or both. The term "job" is applied to a particular unit in the hierarchy of work for the production of goods and services. Jobs derive their basic structure from the nature and characteristics of this hierarchy.

The work hierarchy has as its base the work operations a single worker performs in doing a portion of his job. Its upper limit is formed by the work operations accomplished by groups of individuals combined into organizations. The names of units that compose this range of work operations are: position, job, duty, tasks and element.

2. Definitions

a. Position. The term "position" is the work capable of being performed by the individual.

b. Job. The term "job" is applied to a group of identical positions. Job is the unit with which the personnel transaction of selection, training, classification, and assignment are usually carried out.

c. Duty. A "duty" is one of the distinct major activities involved in the work performed by the incumbent of a position.

d. Task. A "task" is one of the work operations that constitute a logical and necessary step in the performance of a duty.

e. Element. Tasks are made up of "elements". The smallest step of a task.

f. Job Description. The written description of the work performed by the worker . . . an enumeration of tasks which comprise the job, (and the physical and mental demands of the job).

g. Job Analysis. The breakdown of a job into a series of levels of job tasks of increasing specificity.

h. Task Analysis. The breakdown of a task into a series of elements (Skill Units).

i. Skill Analysis. The breakdown of an element of a task into smaller physical and mental skills required to perform it.

NOTE: The introductory comments and definitions "a" through "f" were extracted from the Canadian Forces Manual on Job Analysis and Job Description Writing.

j. Training Analysis. The establishment of learning specifications to meet stated job and task requirements. The process of arriving at learning objectives.

k. Learning Objective. An instructional goal of the training course expressed in terms of three elements: (1) The behavioral action; (2) the condition element, and (3) the standard element. Training Objectives and learning objectives are synonymous.

l. Terminal Objective or End of Course Objective. A learning objective describing the behavioral action expected from the student at the end of the course. Terminal and end of course objectives are identical for a course; the mission of which is to train students to perform job tasks.

m. Enabling Objective. A learning objective which helps the student achieve a terminal or end of course objective. Lower level task elements.

n. Mission. The general "goals" of a training activity (school), or a course. A mission should contain five elements: (1) Who is to be trained; (2) to do what job; (3) to what degree of qualification; (4) where, and (5) under what general conditions.

o. Rating. The enlisted rating structure is the framework for career development of enlisted personnel. (i.e., AG Aerographer)

p. Rate. (e.g., AG3)

q. Paygrades are the levels established by legislation for pay and allowance purposes, (i.e., E-2 through E-9).

r. Training Program. The entire training offerings of the training activity, organized and presented in accordance with planned directives, sequence, and procedures, to achieve an established operating mission; and knowledge, skills, and attitudes required of students to perform general and/or specialized professional and technical duties.

s. Training Program Design. (1) To plan and set forth the general framework of training for the training activity which will include: training activity's training program of courses related to selected technical areas. The elements of the program so organized in a sequence and inter-relationship that when thus presented will enhance meaningful instructional procedures and learning experiences for students. (2) To arrange all parts and elements of the training program and activities

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NOTE: Introductory comments and definitions "a" through "f" were extracted from the Canadian Armed Forces Manual Job Analysis and Job Description Writing. Definitions "g" through "n" were based on Rundquist, Job Training Course Design and Involvement.

into an integrated whole as a basis for effective instruction and relate learning objectives to general and/or specialized professional and technical duties.

t. Course of Study. An official guide for use as an aid to instruction in a given subject or technical area of study. It may include objectives of a course or technical area, scope and nature of material to be studied, instructional aids, texts and reference books, learning objectives, teaching methods and plans for the measurement of students' knowledges and skills as related to general and specialized professional and technical duty requirements.

u. Curriculum. (1) A systematic group of courses or sequence of courses required to perform jobs of a rating (e.g., AG rating). (2) A general overall plan of the content of a course that should be offered to students to qualify them to perform general or specialized professional or technical duties. (3) A body of prescribed training experiences under training to perform general and/or specialized professional and technical duties.

v. Subject. A division or field of organized knowledge.

w. Course. Organized learning objectives in which instruction is offered within a given rating (e.g., AG rating).

x. Programmed Instruction. Instruction provided by self-teaching materials (e.g., a programmed text, computer assisted instruction or other "teaching machine," or prerecorded tapes or records used for foreign language training). In this type of instruction is used a workbook, text book, or mechanical and/or electronic device which has been "programmed" to help students attain a specified level of performance by (1) providing instruction in small steps; (2) asking one or more questions about each step in the instruction and providing instant knowledge of whether each answer is right or wrong, and (3) enabling students to progress at their own pace.

y. Computer Aided Instruction (CAI). An interaction between a man and a computer system that involves two-way communication, with the objective of optimizing learning and retention by the man involved in the interaction. The role of the computer system is one of presenting programmed instructions which vary according to behaviors of the man and not one of merely assisting in retrieval of information or solution of problems.

z. Computer Managed Instruction (CMI). A system in which a computer is used to route a trainee through a series of instructional materials that are presented by various media, in order to be best suited to his particular needs and abilities.

za. Student Academic Evaluation. The appraisal of the quality of students' performance and accomplishments in activities within the training program.

zb. Examinations/Tests. Instruments prepared on paper by which students use pencils or other writing materials to answer questions appearing on the instruments which are designed to appraise knowledges and skills, achievements or present status of students' knowledges and skills obtained from a training course.

zc. Performance. The actual accomplishment of a student as distinguished from his potential ability, capacity, or aptitude.

zd. Observation. The act or process of observing students in their learning activities as a means of judging their accomplishments in training courses.

ze. Testing. A process utilizing an examination, quiz, or other procedures to measure aptitude, knowledge, skills and/or achievement of students or to diagnose the effectiveness of instruction or the adequacy of a course or course of study.

zf. Interpretation of Outcomes. A statement of significant outcomes resulting from evaluation procedures, usually involving varying amounts of interpretation, and including identified needs for strengthening or improving aspects of the training program.

zg. Follow-up and Evaluation (Training Feedback). The process of determining performance of students after completion of specific training for use as a basis for judging the effectiveness of the training program.

zh. Training Activity Evaluation. The process of appraising the adequacy of a training activity to accomplish its mission and objectives. It includes the appraisal of all factors that influence training effectiveness, such as organization, command functions - including command, policy making, academic standards, and staffing; training plans and direction functions - including effectiveness of implementation formulated policies; technical school/department operations - including student selection, instruction, counseling and guidance, and follow-up procedures; and training support functions.

zi. Training Activity Evaluative Standards. A statement of accepted quantitative and qualitative values by which the degree of excellency of a training activity may be judged. As examples - amount of financial support required, qualification of staff members - quality and amount of training facilities required, training program, achievement of students.

zj. Training Activity Evaluative Criteria. The factors considered in analyzing the status of the training activity to determine its effectiveness in terms of outcome to be achieved or of the resources for achieving the mission of the training activity. Factors considered in determining the degree the training activity meets the established institutional evaluative standards.

zk. Survey Instrument. A questionnaire, rating scale, or other printed form used in gathering information about any aspect of training.

zl. Training Equipment. Equipment which is used by the instructor and/or student as an element of the learning process, or is the subject of instruction.

3. Basic Concepts

Training Design. Enlisted training in the Navy has been focused too much on the qualification of personnel for advancement in rating, with the assumption that such advancement indicates qualifications for job performance which may not always be true.

The design of training programs curricula, and courses from job analysis is based on the premise that the training will prepare personnel (students) to perform - to a specified degree of excellence - the duties and tasks of each duty that they will be required to perform upon their assignment to a Navy job in a specified grade and rating.

This approach to training design requires the identification of the jobs within a rating, duties within a job, and tasks of each duty. This identification procedure is being accomplished by the Navy Occupational Task Analysis Program (NOTAP). This program not only identifies jobs, duties, and tasks of each enlisted rating but computer analysis of these data provides related data which can be used as a basis for decisions with respect to:

(1) the design of the training program.

(2) which identified jobs, duties, and duty tasks should be included in training curricula and courses, and which tasks should be taught on-the-job.

(3) the level of formal training (preparatory, basic, advanced, or specialized) each duty task should be placed.

4. Purpose of Interpretation of NOTAP Computer Printouts

Interpretation of NOTAP Computer Printouts in Relation to Training Design and Development. The design and development of training programs based on a task analysis approach requires two major analytical processes: (1) job analysis and (2) training analysis. NOTAP is concerned primarily with the job analysis process. Training analysis is performed by Navy training activities, using job analysis computer printouts in the process. The training analysis procedure has been explained in detail by Rundquist.[1]

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[1]Edward A. Rundquist, Job Training Course Detail and Improvement.

The purpose of this instruction is neither to describe job analysis nor training analysis but to interpret NOTAP computer printouts in terms of their use in the design and development of training programs, curricula, and courses, so that NOTAP data will be used in the most effective way for training purposes.

5. Procedures

The procedures of describing how NOTAP printouts may be used most effectively in the design and development of Navy training programs, consists of interpreting and using the samples of NOTAP computer printouts in Attachment A for the design of (1) the general framework of a Naval Training Program shown in Attachment B, and (2) the format and samples of the content of a curriculum for an advanced course shown in Attachment C.

6. Interpretation of NOTAP Computer Printouts in Design and Development of Navy Training Programs

(See NOTAP Computer Printouts in Attachment A to Appendix A)

Attachment No.	Title	Page in Attachment A to Appendix A
Aa1	Sample Sheet of a Task Inventory	A-1

A task inventory booklet usually consists of 200 to 400 task statements. An inventory is constructed not for a particular position or specialty, but for the entire career structure and promotion ladder (E-2 through E-9). Thus an inventory will include work done at the apprentice, journeyman, supervisory, and directorate levels, since an incumbent may perform tasks which are above or below his skill level.

The task inventory of a rating in NOTAP is usually prepared by military personnel after considerable research of publications, directives, school curricula, and an observation/interview of job incumbents at actual work locations. The prepared booklet is then reviewed by specialists in the fleet and the technical schools to insure its applicability, currency, and adaptability to fleet administration. The completed task list - stating what an individual in a rating is doing on his job - is furnished to billet incumbents in samples of 10%-50% of the total number of personnel serving in the rating in the fleet. Each billet incumbent indicates on the response packet the relative time he spends on each task he performs. (See Attachment Aa2.) He also responds to other pertinent questions concerning training, equipment, etc.

The time spent values and the actual tasks performed are the fundamental features of the job analysis procedures. The completed booklets

are returned to NOTAP where they are optically scanned and all data placed on magnetic tape for computer processing.

The computer has been previously programmed (named Comprehensive Occupational Data Analysis Program--CODAP) to make specific analysis of the input data. Samples of the types of computer data useful for the design and development of training programs are shown in Attachment A.

Attachment No.	Title	Page
Aa2	(Sample) Optical Scanning Response Packet	A-3

Interpretation

This packet shows the item numbers and titles of each item of information requested from individuals who processed the "Task Inventory." The responses to items are coded in this packet for computer analysis.

Uses of the Optical Scanning Response Packet

For training purposes, the title of items on this packet indicate the kind of information available for computer printouts. It also gives the titles of the abbreviated headings of the "Print Variable" in Task Sequence.

Attachment No.	Title	Page
Ab1	(Sample) Hierarchial Diagram of Task Similarity Matrix; (See also the Time Similarity Matrix)	A-8 8a

Interpretation

A computer program with the greatest potential for manpower purposes is one which identifies and describes the job type existing in an occupational survey sample. Several NOTAP computer printouts in Attachment A present such job description data. Six of the seven printouts contain the duties or tasks that are found in the job. The other printout, Attachment Ab1 shows graphically how the computer combines people who perform similar tasks. These groups then may be identified as the jobs of the rating.

This computer job-clustering program begins with task level job descriptions of the "N" individual members in a sample. Each individual is considered as a group. In the first stage the computer locates the two most similar of the "N" job descriptions, i.e., the two with the greatest overlap, combines them into a single cluster, and computes and consolidates the job description. The total number of groups is thus reduced to N-1. In the next stage the computer locates and combines the two most similar of the N-1 group either by adding an individual to the pair already combined or by combining two individuals to form a new group. The total number of groups is then reduced to N-2. In successive stages the computer continues to combine individuals, to add individuals

to groups, and to merge groups according to their job descriptions. This process is repeated until all individuals are combined into a single group. A record is made during the grouping process which shows the number of members in the group (e.g., 52), and the similarity of the group formed. A group thus formed indicates a job of the rating. For example see the Administrative Supervisor job (group 10) in Attachment Ab1). Task and duty job descriptions can then be printed, upon request, for groups formed at any stage of the grouping process. See Attachments Ad1, Ad2, Ad3, Ad4 and Ae1 for duty and task job description printouts for group 10 shown in Attachment Ab1.

Attachment Ab1 is a sample section taken from a chart several feet long which shows the grouping process (jobs) for the entire AG rating. For the purpose of interpreting this attachment, note that group 10 (Administrative Supervisor job) is composed of 52 people (cases 618-669 shown in the first column of Attachment Ab2). As indicated by group 10, the overlap of individuals on tasks and the overlap of groups are shown in the printouts in average percentage of overlap. The overlap between groups is the critical value upon which the job clustering operates. The average percentages of 21.6 indicate the degree of similarity of group number 13 with 20 people, and group number 15 with 32 people who merge into group 10. The average percentage of 28.7 indicate the average overlap of members within group 10.

Selection of groups to be reported as significant job types is based on: overlap between groups merged (group 10, 21.6%), overlap of members within the group (group 10, 28.7%), and the size of the group (group 10, 52 members). For background data pertaining to members of group 10, see Attachment Ab2. As a working rule, groups of five members or more having a between group overlap of 40 per cent and a within group overlap of 50 per cent, are selected as job types. However, final selection must recognize the judgment of the technical analyst - who is familiar with the jobs within the rating - in identifying job types which should be included in the training program.

The titles of jobs selected from the grouping process are determined by the analyst after examination of the job description (e.g., for group 10, see Attachment Ad2) and each task included in the job description. The tasks listed for the job description in Attachment Ad2 are of an administrative nature and the percentages of members performing and time spent indicates that tasks are primarily for paygrades E-7 through E-9. The job is, therefore, given the title of Administrative Supervisor.

ing Uses of Diagram of Task Similarity Matrix

The jobs identified by Attachment Ab1 and selected for training purposes, by the technical and training analyst, are used in the following manner

1. In the development of the content and determining the sequence of the content for the conceptual framework of the training program shown in Attachment B. The phases and courses of the training program will be based upon the jobs for which students will train. And the career pattern indicated by the training program framework will be determined by the levels of technical complexity of each job. That is, the training for some jobs should be basic in content, other jobs require advance specialized training.

2. In the development of training curricula for each course of the training program as shown in Attachment C. All jobs which have been selected by Attachment Ab1 as appropriate for a phase and course of the training program are transferred to Attachment C; thus, these jobs became the scope of the curriculum for a course. Each job then becomes the first step in the training analysis process as shown in Attachment C, II and III.

Attachment No.	Title	Page
Ab2	(Sample) Print Variable in Task Sequence	A-9

Interpretation

This computer printout is used in conjunction with the "Diagram of Task Similarity Matrix" (Attachment Ab1). It is the results of the responses of personnel who completed the "Task Inventories". This example shows the background and personal information about the 52 men in Group 10 of the "Diagram of Task Similarity Matrix."

The first left column of numbers, (e.g., 618-669) are computer input sequence numbers for these 52 men. The headings of columns of numbers are abbreviations for the items of the "Optical Scanning Response Packet" (Attachment Aa2). The column of numbers under each heading are background and personal information items about the Task Inventories. As an example case (person) No. 618 is serving in paygrade 5 (see column 7 in the print var, and item 7 in the "Optical Scanning Response Packet").

Training Uses of the Print Variable

The sequence numbers in the left column of the Print Variable are assigned by the computer in such a way that group members combined at any given stage appear together. The members of any job type are thus always found within a given input sequence range. These history and background summary reports are extremely useful. For example they serve to:

1. provide a view of the general background of people who comprise a group (e.g., group 10), and in turn who are serving in a specific job for which training will be given.

2. assist in determining jobs which can be performed by inexperienced or experienced personnel and thus provide a clue as to what phase or course the job is related when designing the training program and constructing curricula for courses.

3. identify persons working above and below their skill level.

Attachment No.		Title	Page
Ac1	(Sample)	Duty Identifiers and Titles	A-10

Interpretation

This attachment is a list of duties arranged alphabetically under which the computer categorized all tasks that were listed in the "Task Inventory."

(This is not a separate computer printout. It is shown here because the sample sheet in Attachment Ac2 does not show all duty titles.)

Attachment No.		Title	Page
Ac2	(Smaple)	Alpha-Numberic Order of All Duty/Task Titles	A-11

Interpretation

This is a list of all tasks which were included in the "Task Inventory" (Attachment Aa1). Tasks are listed numerically under categories of Duties which are arranged alphabetically.

Training Uses of Alpha-Numeric List of Duty Tasks

This list provides a ready reference for the training analyst in the task analysis process in determining which task to include in training curricula. That is, when using "Job Descriptions" (Attachments Ad1-Ad4, Ae1, and Ag1-Ag2) to determine which task for which to train.

Attachment No.	Title	Page
Ad1 (Sample)	Duty Job Descriptions of Group 10; Case No's 618-669; 52 members; in sequence of members performing each duty	A-12
Ad2 (Sample)	Task Job Descriptions of Group 10; Case No's 618-669; 52 members in sequence of members performing each task	A-13
Ad3 (Sample)	Duty Job Description for Group 10; Case No's 618-669; 52 members in sequence of average percent time spent on each duty	A-15
Ad4 (Sample)	Task Job Description for Group 10; Cases 618-669; 52 members; in sequence of average percent time spent on each task	A-16

The task composition of each job selected from the analysis of the "Diagram Task Similarity Matrix" (Attachment Ab1) for a rating is provided (as an example for group 10) by duty and task job descriptions in NOTAP computer printouts (Attachments Ad1-Ad4, Ae1, and Ag1-Ag2). Duty and task job descriptions for all jobs selected from the "Task Similarity Matrix" can be obtained upon request in a very short time from the NOTAP program. For discussion purposes, the above four computer printouts showing duty and task job descriptions for group number 10 (the job of Administrative Supervisors) will be discussed first.

Interpretation

The headings for each duty and task job descriptions are the same.

Group Number = 10 means that this group was formed by the computer in the "Diagram of Task Similarity Matrix" and merged at "stage 10".

Ordered from 618-669 are the case numbers of the 52 people in group 10 indicated by the "Print Var" (Attachment Ab2)

Job Description cases = 727 means that the task inventory was administered to a sample of 727 AG personnel.

Tasks = 483 means there were 483 separate tasks in the "Task Inventory"

Duties = 19 means that the tasks were grouped under 19 duties coded as E, B, P, A, C, etc.

Members = 52 means that there were 52 people in group 10 who were performing similar tasks (homogeneous).

Selected from hierarchy position 618 through 669 are the case numbers that make up personnel in group 10. (See Attachment Ab1 and Ab2.)

Formed at stage 10 means group 10 was formed from other groups in the "Diagram of Task Similarity Matrix"

On the first page of the computer printouts for each job description are letter codes E, B, P, etc. followed by titles of duties to which all tasks are related. A complex program has been written which enables the computer to generate composite job descriptions made up of tasks performed for groups of individuals. The four columns of figures on the right of each page of job descriptions show respectively, the percentage of group members performing each duty or task, the average percentage of time spent by those members who perform the duty or task, the average percentage of time spent on each duty or task by all members of the group, and the cumulative sum of the average percent of time spent by all members. The third column sums to 100 per cent, thus showing distribution of work time for the group.

The four asterisks (* * * *) at the top of a column of numbers indicate that the column was printed by the computer in numerical sequence, beginning with the highest percentage.

The last column indicated by "N" is the cumulative sum of the number of duties or tasks in the list.

Training Uses of Duty/Task Group Job Descriptions

Selection of tasks for which to train. An important step in curricula construction is the selection of tasks from the total list of tasks of the "Task Inventory" for which training will be based. For discussion purposes, Table 1 shows a sample of "A" tasks which have been extracted from the job descriptions of group 10 and selected for (1) formal training; (2) on-the-job training, or (3) discarded. Selections were based on NOTAP printouts in the following manner: The NOTAP job descriptions provide partial data for making these decisions. As an example, in the job descriptions, (see Attachments Ad1-Ad4) for Administrative Supervisor, the computer has selected all administrative type of tasks related to the 19 duty categories and listed the tasks according to percent of members of group 10 who perform each task (Attachment Ad2) and the average percent of time that is spent by all members in performing each task (Attachment Ad4).

An examination of the list of over 300 tasks related to the job of "Administrative Supervisor" (Group 10) reveals that many of the tasks are of such nature that they should not be included in training curricula. The problem, therefore, is to determine for which task formal training should be given. The percentage tables for the job description help to make this decision. Experience with this type of data indicates that only tasks which are performed by 20 percent and above of the members of a job group should be included in formal training. Experience with task analysis data also indicates that the amount of time personnel spend on a task should be a factor in determining its importance as a task for which to train. Therefore the duty and task job descriptions (Attachments Ad3, Ad4) which emphasize the average amount of time spent should be examined when deciding which tasks should be selected for formal training purposes.

However, the training analysts, who know thoroughly the requirements of the rating under consideration, must also consider each task eliminated from formal training, from the standpoint of the following concepts which have been stated by the Marine Corps:

> "The purpose of this section is to provide guidelines to assist in the determination of the tasks to be included in formal training.

TABLE 1

DETERMINING VALID AND ON-THE-JOB DUTY TASKS AND INDICATING THEIR TRAINING LEVELS BY USE OF NOTAP COMPUTER PRINTOUT DATA

(Example of results of procedures)

AG DUTY TASK TITLES

AGTITLES

A...DIRECTING AND IMPLEMENTING

JOB: Administrative Supervisor

Training Level

Valid Tasks: (Conduct formal training for these tasks)	CORE	P (Preparatory (For Group of Ratings))	A (Basic Tech. (Job Entry Specialization))	B (Advanced Tech. (Individual or Supervisory))	C (Advanced (Particular Job))	O (Technical Specialty)	OJ (On-the-job Training)
Duty Task A 20 PREPARE LOCAL DIRECTIVES				B			
Duty Tasks A 7 ASSIGN PERSONNEL FOR DEPLOYMENT				B			
A 14 ASSIGN COLLATERAL DUTIES				B			
A 24 ASSIGN MILITARY DUTIES				B			
A 18 APPROVE WATCH BILLS				B			
A 11 APPROVE DISAPPROVE SPECIAL REQUESTS				B			
A 13 NOMINATE PERSONNEL FOR SPECIAL RECOGNITION				B			OJ *
Duty Task A 16 CONDUCT REPORTING ABOARD INTERVIEWS				B			
Duty Task A 17 SUPERVISE CIVILIAN PERSONNEL				B			
Duty Task A 22 CONTROL OPERATING EXPENSES				B			
Valid tasks to be transferred to duty							
A 12 CONDUCT PHYSICAL FITNESS PROGRAMS (D)							
A 25 CONDUCT ZONE INSPECTIONS (C)							

Non-valid Tasks: (Do not conduct formal training for these tasks)

A 1 INCORPORATE EQUIPMENT MODIFICATIONS
A 2 CORRELATE DATA WITH JOINT TYPHOON WARNING CENTER
A 3 ORGANIZE ANTISUB. WARFARE ENVIRON. PREDICTION SERVICE OPNS.
A 4 DEVELOP SPECIAL BATHYTHERMOGRAPH CODES
A 5 QUALIFY/REQUALIFY COMPUTER OPERATORS
A 6 SET UP SPECIAL OPERATIONAL PROJECTS
OJ * A 19 DRAFT TECHNICAL MANUALS/PUBLICATIONS
A 8 PREPARE JOB ORDERS FOR CIVILIAN PAY
OJ * A 9 CHECK CIVILIAN PAYROLLS FOR ACCURACY
A 10 COORDINATE TUITION AID PROGRAM
OJ * A 15 PARTICIPATE ON JOB QUALIFICATIONS BOARD
A 21 NOTIFY ACTIVITIES OF BUDGET AUTHORIZATIONS
OJ * A 23 PREPARE ACCOUNTING BUDGET

* Asterisk indicates tasks that should be included in on-the-job training.

The above "A" tasks were extracted from the job descriptions for Group 10, with 52 members (cases 618-669). These "A" only duty tasks serve as an example to demonstrate how tasks of a job description of NOTAP computer printouts must be selected and categorized according to:

a. valid tasks for which formal training shall be given
b. tasks for which on-th-job training shall be given
c. levels of training for which formal training tasks, are most appropriate
d. non-valid tasks for which training shall not be given.

In practice all tasks which comprise group job descriptions must be included in the above tyne of analysis.

Also, in practice, when performing an analysis, each valid task should be written on a card, and then cards grouped according to training levels, for use when determining for what course each task is most appropriate.

MAJOR CONSIDERATIONS. The below-listed considerations are provided to assist in the determination of the behaviors to be included in formal training. It is not necessary that those behaviors selected meet all of these considerations if only one condition is met and that is of sufficient impact, it may be included. Conversely, behaviors could meet a majority of the considerations more appropriate for learning on the actual job.

1. Universality. The skill and its associated knowledge are used by personnel in their assignment regardless of the location and type unit. The criteria of universality connotes a wide application of the skill and the desirability of including it in course content. In cases where a skill is unique, i.e., required at only one or a small percentage of the job performance locations, it should be learned on the job unless the criticality of the task dictates otherwise.

2. Criticality. This consideration applies to the importance of a skill performance and its effect on the accomplishment of the mission. For example, in the performance of effective first echelon maintenance, a crack in the paint on a vehicle requires refinishing; however, it does not directly bear on mission accomplishment, whereas the skill of changing a tire could affect mission performance. Where a behavior is critical to mission performance, it should be considered for inclusion in formal training.

3. Difficulty. Skills which are not easily learned should receive a high priority for formal school instruction. The ability to disassemble a complicated piece of equipment could conceivably be learned on the job; however, it would expend an excessive amount of time and could possibly endanger the life of the learner and others.

4. Frequency. The fact that a task is performed often and occupies a major portion of the job incumbent's time does not necessarily warrant its inclusion. However, if it is more economical to teach it, rather than learn it on the job and if there is a consistently higher standard or product as a result of its being accomplished in a "best way," then it may be identified for standard instruction.

5. Practicability. This focuses on the question, "Is the time and effort worth the formal training?" This is particularly applicable when determining what level of proficiency should be taught. It is possible to teach any skill in the formal environment, however, the cost of devices, additional equipment and time expended may not produce a significant advantage over on-the-job, or self-taught methods. For example, typing is a skill considered worthy of formal school training. The proficiency in this skill has a break-even point beyond which increased proficiency is a direct result of continuous practice.

NOTE: The nine major considerations were extracted from Marine Corps ORDER P1510.10.23A, Design of Courses of Instruction

It is considered uneconomical to extend the training time beyond the break-even point to obtain the necessary practice.

6. Achievability. This directs attention to the attainability of the skill required. If the intelligence or maturity of the student population cannot accomplish the behavior, or the standards are beyond the reach of a majority of the students, then it cannot be prudently accepted as a valid goal. Using the foregoing typing example, it would be inappropriate to require each student to be able to type 120 words per minute prior to graduation.

7. Deficiency. Where job skills performed in the field are constantly accomplished in a poor or below-average manner an indication exists that learning should be accomplished in a formal school environment.

8. Retainability. This consideration is closely related to frequency, difficulty and criticality. Once learned, a skill which is not used or reinforced deteriorates. The infrequent use of a noncritical skill may require that it be learned on the job and reinforced in unit training programs. However, a critical, difficult and infrequently practiced skill may require training to a higher skill level than the field requirement in order to ensure that, considering deterioration, a specific skill level will be retained. In the case of training for a higher skill level, specific note should be made of this fact to preclude future review efforts from reducing the training based solely on field performance requirements.

9. Follow-on Training. In preparing a course of instruction, it is necessary to consider the on-the-job learning, or formal schooling which will subsequently occur. This is necessary in order to prepare the student for such instruction and to permit the designers of the follow-on course to be able to proceed from an established skill level."

Uses of valid tasks for which to train. Tasks selected for formal training for a job as indicated in Table 1 are then used in the task analysis and writing learning objective in the development of a curriculum for a course. See Attachment C,III, DUTY TASK ANALYSIS and IV COURSE CONTENT (Learning Objectives).

The analysis shown in Table 1 however cannot be completed until decisions are made with respect to the paygrades (E-2 through E-9) to which training should be given. These decisions are based on an analysis of data found in the following printout.

Attachment No.	Title	Page
Ae1 (Sample)	Duty/Task Job Descriptions for Group 10 by Paygrades E-3/E-9 Cases No. 618-669; No. members in Group - 52; Ordered in Sequence by Each Paygrade. Percent of Members Performing Average Percent Time Spent by Members Performing Average Percent Time Spent by All Members Cumulative Sum of Average Percent Time Spent by All Members	A-18

This computer printout identifies the task composition of group 10 (the job of Administrative Supervisors) by paygrades.

Interpretation

The job descriptions for group 10 presented in Attachments Ad1-Ad4 list tasks for 52 individuals of the group. The above job descriptions (Attachment Ae1) are for each paygrade E-3 through E-9 in group 10. The printouts show the number of individuals in each paygrade group, the percentage of members in each paygrade group that performs each task and the average percent of time spent in performing each task by each paygrade group.

Training Uses of Duty/Task Job Descriptions by Paygrades E-3 - E-9

The jobs descriptions are used for the same purpose as job descriptions for total members of a group (e.g., group 10). That is to select tasks for which to write terminal objectives in the curriculum. They provide additional information in making the analysis as shown in Table 1. In addition, since tasks are listed according to each paygrade, this type of listing will give further evidence as to which tasks are appropriate for what level of training (e.g., basic, advanced).

Attachment No.	Title	Page
Af1 (Sample)	Duty Summary of Percent of Members Performing Each Task Comparison of Paygrade groups by Individual Duty	A-30
Af2 (Sample)	Duty Summary of Percent of Members Performing Each Task by Paygrades E-2 through E-9. Comparison of Paygrade Groups by Individual Tasks	A-31

Attachment No.	Title	Page
Af3 (Sample)	Task Summary of Percent of Members Performing Each Task by Paygrade E-2 through E-9 Comparison of Paygrade Groups by Individual Tasks (Alpha-Numeric Order)	A-32
Af4 (Sample)	Duty Summary of Average Percent Time Spent by All Members of Paygrades E-2 through E-9 Groups Per Task. Group Sum of E-2 through E-9.	A-33
Af5 (Sample)	Duty of Average Percent Time Spent by All Members of Paygrade E-2 through E- Groups Per Task.	A-34
Af6 (Sample)	Task Summary of Average Percent Time Spent on Each Task by Paygrade E-2 through E-9 Groups. Comparison of Paygrade Groups by Individual Tasks. (Alpha-Numeric Order)	A-35

This group of computer printouts are the summary of the percentage of each paygrade group that collectively perform each of the 19 duties and 484 tasks, and the amount of time each paygrade group spends on each of the 19 duties and 484 tasks. Thus, summaries reveal when tasks should be introduced into the career ladder (E-2/E-9) training and at what level of training (preparatory, basic, or advanced) each task is most appropriate.

Interpretation

Three of the summaries show the percent of all members of the sample (727) - distributed by paygrade (E-2 through E-9) groups - that perform each of the 19 duties and each of the 484 tasks related to these duties. (See Attachments Af1-Af3.) The other three summaries show the average percent of time spent by the sample of 727 members - distributed by paygrade (E-2 through E-9) groups - each of the 19 duties and each of the 484 tasks. (See Attachments Af4-Af6). Attachment Af3 shows an example of the Alpha-numeric arrangements of all "A" tasks that appear in Attachment Af2. Attachment Af6 shows an example of the Alpha-numeric arrangement of "A" tasks which appear in Attachment Af5.

Training Uses of Duty and Task Summaries

These summaries are ready references:

1. To further support the validity of tasks selected in Table 1 for formal and on-the-job training.

NOTE: Af3 and Af6 are not available in Alpha-Numeric format as of this writing. However, efforts are in process to re-program for this capability.

2. to determine at what level of training shown in Table 1 each identified job and duty task should be placed. As an example, Attachment Af3 indicates that the training for "A" tasks and the job of Administrative Supervisor to which the "A" tasks are related is primarily for paygrades E-7, E-8, and E-9. Therefore, these tasks should be placed in the ADVANCED TECHNICAL level of training (B School), as indicated by Table 1.

3. to assist in determining the design of the Training Program which is made up of several levels of courses as shown in Attachment B. This design in turn will determine the scope and content of the curriculum for courses. An example is shown in Attachment C.

4. to insure that entry-level courses are based on tasks that appear in jobs assigned to personnel during their first enlistment. And that advanced courses are based on tasks that appear in jobs requiring advanced technical and highly specialized performance.

5. to insure that on-the-job training will have some degree of structure to the extent that performance will be on jobs and tasks that have been identified by the job task analysis process.

Attachment No.	Title	Page
Ag1 (Sample)	Duty Job Description Each Paygrades E-2 - E-9 Percent of Members (in Each Paygrade Group) Performing and Average Percent Time Spent by Each Paygrade Group	A-36
Ag2 (Sample)	Task Job Description of Each Paygrade E-2 - E-9 (Task Arranged in Alpha-Numeric sequence) Percent of Member (in Each Paygrade Group) Performing Each Task. and Average Percent Time Spent by Each Paygrade Group on Each Task.	A-37

This third group of NOTAP computer printouts shows the "Duty Job Descriptions" and "Task Job Descriptions" for each paygrade, E-2 through E-9.

Interpretation

The job description for each paygrade (e.g., E-3) indicates the number of individuals in that paygrade group (e.g., the printout shows that there are 74 members in E-3 paygrade group, and 140 members in E-4 group, etc.). The sum of members in all paygrades is 727, which is the total of the sample. The computer has selected from the total of all tasks (484) those tasks which the group in a paygrade performs. Opposite each task, in four columns, is indicated:

(1) the percent of members in the paygrade group (e.g., 74 in the E-3 paygrade group) who perform each task.

(2) the average percent time spent by members in the paygrade group (e.g., 74 in the E-3 paygrade group) who perform the tasks.

(3) the average percent time spent by all members in the paygrade group (e.g., 74 in the E-3 paygrade group) performing each task.

(4) the cumulative sum of average percent time spent by all members (e.g., 74 members in E-3 paygrade) performing each task. The "N" column in the cumulative total of the number of duties or tasks for the paygrade group.

Training Uses Job Descriptions of Paygrades Groups

Job descriptions by paygrades are used for the same purpose as duty and task summaries by paygrades. That is (1) to further validate tasks selected for formal training (see Table 1); (2) to support decisions to place specific tasks in the various levels of training, (see Table 1); (3) to assist in the determination of levels of courses for the Training Program (see Attachment B), and (4) to insure that levels of courses (preparatory, basic, advanced) are based on tasks appropriate for the paygrades of individuals who will be trained by the course. That is, advanced paygrades will be trained by courses made up of tasks selected from job descriptions of advanced paygrades. (See Attachments B and C.)

Attachment No.	Title	Page
Ah1 (Sample)	Equipment VARSUM by Paygrade	A-41

This is a sample of the printout that shows a summary of the kinds of equipment with which AG paygrade group members are in contact when performing jobs and tasks.

Interpretation

VARSUM: means variable summary

At the top of the summary are the groups (E-3 through E-9) included with the number of members in each paygrade group (total 724.)

Variable data on: V130 is the computer code number for the specific equipment.

e.g., Semi Automatic Station GMQ 14 series is the name of the equipment.

Interval is:

	E3	
1. Use or operate	46	means 46 E-3's use or operate the equipment
2. Repair	1	means that 1 E-3 repairs the equipment
3. Do both	0	means that o E-3's use or operate and repair the equipment
Total counted above	47	is the total of the above (46 + 1 + 0 = 47)
Other	27	means that 27 E-3's do not have contact with the equipment

Training Uses of Equipment VARSUM by Paygrade

This summary of operational equipment for a rating is very useful in the training analysis process when:

1. Designing the training program (see Attachment B). The VARSUM should be consulted in decisions with respect to the number and level of courses required. For example, equipment operated or maintained by E-2's should be included in basic level training. If a piece of equipment is the concern of higher paygrades, it should be included in advanced technical or specialized courses. After reviewing the data in the Equipment VARSUM, the training analyst and technical specialist must then decide what course should be offered in order to include equipment that is necessary to train students to perform in jobs of the rating. In other words, a matching of jobs, equipment, and course levels must take place.

2. Making decisions to eliminate old equipment or add new equipment in the training process. The Equipment VARSUM provides valuable data on the extent to which various kinds of equipment are used or maintained in the fields; thus, dictating what equipment should be included in the training process.

3. Constructing curricula for training courses (see Attachment C). The Equipment VARSUM should be consulted in relation to the construction of the following aspects of curriculum:

a. Item II, Scope (Task Based Jobs). Jobs identified by the "Diagram of Task Similarity Matrix" should be checked against data in the Equipment VARSUM to determine what equipment should be involved in the training process, for each job.

b. Item III, Duty Task Analysis. Enabling Objectives may need to be expressed in terms of action on specific equipment. The equipment code number (e.g., V154) which identifies the equipment in the VARSUM should appear in anabling objectives, if action of the equipment is required.

c. Item IV, Course Content. Learning objectives may be concerned with duty tasks and/or skill tasks related to equipment, training tasks which require student performance on the equipment, and a standard of performance on the equipment. The equipment code number (e.g., V154) which identifies the equipment in the VARSUM should appear in the duty task,skill task, and training task if these tasks are concerned with action on a specific kind of equipment.

d. Summary of Operational Equipment for Which Training is Conducted. A list of each item of equipment which has been included in item IV, Course Content of the curriculum should be listed under the course and job to which their equipment item is related.

Attachment No.	Title	Page
Ah2	Worker Characteristics of the Job by Paygrade E-2 through E-9	A-43

This computer printout portrays the degree of physical, mental and leadership characteristics that is required to perform the jobs of each paygrade E-2 through E-9.

Interpretation

The numbers at the top of the printout (e.g., Group identity = AG SPCE22 CONTAINING 3 Members) means AG = rating; SPC = special; E2 = paygrade; 3 members - 3 members of the total of 727 comprise the E2 group.

VARIABLE DATA ON: V050 is the computer code number assigned the job characteristic of FINGER, HAND, WRIST, and FOREARM STRENGTH:

INTERVAL		AGSPCE22 ---	AGSPCE82 ---
3	Below Average	0	5
4	Average	2	18
5	Above Average	0	3
TOTAL COUNTED ABOVE		2*	26*
OTHER		1	0

Intervals: 3 Below Average, 4 Average, and 5 Above Average is the scale in the Inventory (see Item C in Attachment Aa2) which the sample of individuals who processed the Inventories answered Item C "Worker Characteristics of the Job".

The numbers under AGSPCE2 and AGSPCE8 are the numbers of 3 members in the E-2 paygrade, and of the 26 members in the E-8 paygrade who answered that there is below average, average or above average hand, wrist, and forearm strength required in the jobs for the E-2 and E-8 paygrades. These data for E-2 paygrade indicate that 2 out of 3 (66.6%) of E-2's indicated that <u>average</u> hand, wrist, and forearm strength is required for their jobs; and of the 11 members in E-9 paygrade, 5 members or approximately 45%, 3 members or 27%, and 3 members or 27% indicated that hand, wrist and forearm strength were required in their jobs.

Training Uses of Worker Characteristics of Jobs by Paygrade Data

Analysis of data in this printout provides further evidence for the placement of various jobs of a rating in appropriate paygrades which in turn gives clues as to which job should be placed in what level of training (basic, advanced or specialized advanced). As examples, the printout data may show that E-2 paygrade jobs are characterized by certain physical demands such as coordination of eyes, hands and feet, while E-9 paygrade jobs are characterized by such demands as personality, emotional stability, public relations, leadership, adaptability, and decision making. These further indicate advanced supervisory type of training.

These types of results from data analysis, are therefore, used (1) in designing the training program (determining courses) as indicated by Attachment B, and (2) in writing training tasks when writing learning objectives for a curriculum. (See topic IV course content of Attachment C.) As an example, if the "Job" and "Duty Task" for which the "<u>Training Task</u>" is being written requires such factors as team work, leadership, adaptability, decision making, concentration, and emotional stability; then the training task should be written so that the student would be required to experience or demonstrate these factors in training situations.

However, if the "Job" and "Duty Task" for which the "<u>training task</u>" is being written requires eye, hand, feet coordination, then the training task should be written so that the student will practice the coordination required to achieve the standard specified in the "learning objective". (See topic IV <u>course content</u> of Attachment C.)

In addition the worker characteristics summary can be used to determine physical requirements for entry into training.

Attachment A

Sample Pages of
NOTAP COMPUTER PRINTOUTS
FOR USE IN
DESIGN AND DEVELOPMENT OF NAVY TRAINING PROGRAMS
(Aerographer's Mate, AG)

(Samples of kinds of computer printouts are designated as Attachments Aa1 through Ah2.)

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Attachment No.	Title	Page
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TASK INVENTORY

(AEROGRAPHER'S MATE)

(Sample page of tasks)

__321. Assign personnel for deployment

322. Prepare situation reports

323. Prepare recurring reports

324. Prepare/maintain Watch Quarter and Station Bill

325. Sign off practical factors

326. Draft local forms

__327. Prepare job orders for civilian pay

__328. Check civilian payrolls for accuracy

__329. Coordinate Tuition Aid Program

__330. Approve/disapprove special requests

331. Prepare recall bills

332. Prepare enlisted performance evaluations

__333. Conduct physical fitness programs

334. Participate in physical fitness programs

335. Make arrangements for ceremonies/inspections

336. Maintain organization charts

__337. Nominate personnel for special recognition

__338. Assign collateral duties

339. Maintain leave schedules

340. Maintain Division Officer's Notebook

OPTICAL SCANNING RESPONSE PACKET (Attachment Aa2)

NAVAL OCCUPATIONAL TASK ANALYSIS PROGRAM

BACKGROUND INFORMATION SHEET

MY NAME John Doe MY RATE

A - 1 BILLET IDENTIFICATION

Item 1. SHIP or STATION ACTIVITY CODE

2. SEQUENCE CODE

3. BILLET PRIMARY NEC

4. BILLET SECONDARY NEC

A - 2 PERSONAL INFORMATION

5. BILLET SECURITY CLEARANCE: None, Confident., Secret, Top Secret, Crypto, Other

6. BILLET PAYGRADE: E-1, E-2, E-3, E-4, E-5, E-6, E-7, E-8, E-9

7. MY PAYGRADE: E-1, E-2, E-3, E-4, E-5, E-6, E-7, E-8, E-9

8. SOCIAL SECURITY ACCOUNT NUMBER

TEST SCORES

9. GCT

10. ARI

11. MECH

12. CLERICAL

13. SHOP PRACTICES

INSTRUCTIONS

1. Use No. 2 pencil only.
2. Do not use a pen or other pencil.
3. Indicate your response with a solid black mark in the space provided.
4. Erase completely all changes.
5. Do not detach forms from the packet.

A M H

AMOUNT OF TIME SERVED IN:

14. U.S. NAVY — YEARS / MONTHS

15. MY PRESENT RATING — YEARS / MONTHS

16. MY PRESENT ACTIVITY — YEARS / MONTHS

17. MY PRESENT PAYGRADE — YEARS / MONTHS

18. FORMAL EDUCATION

Yrs. Completed	Degrees or Diplomas
	None
	High School
	Associate
	Bachelors
	Masters
	Doctorate

19. SEX: Male, Female

20. NAVAL CATEGORY: USN, USNR (INACTIVE) USNR, SURTAR, AIRTAR

DO NOT MARK IN THIS SPACE

A-3

OPTICAL SCANNING CORPORATION

NAVAL OCCUPATIONAL TASK ANALYSIS PROGRAM

BACKGROUND INFORMATION SHEET

A - 2 PERSONAL INFORMATION (Continued)

21. MY PRIMARY NEC

22. MY SECONDARY NEC

23. I AM TRAINING FOR (RATING or NEC)

24. I ACQUIRED MY NEC THROUGH

SOURCE	Prim	Sec
Class "A" School		
Class "B" School		
Class "C" School		
Factory Train.		
OJT		
Other		

25. I ACQUIRED MY RATING THROUGH

SOURCE
Class "A" School
Class "B" School
Class "C" School
OJT
Other

INSTRUCTIONS

1. Use No. 2 pencil only.
2. Do not use a pen or other pencil.
3. Indicate your response with a solid black mark in the space provided.
4. Erase completely all changes.
5. Do not detach forms from the packet.

26. AMOUNT OF OJT REQUIRED TO DO MY JOB

MONTHS

27. AMOUNT OF CLASSROOM TNG REQ. IN MY JOB

WEEKS

28. AMOUNT OF WORK EXPERIENCE REQ. IN MY JOB

YEARS

29. NO. OF PEOPLE I SUPERVISE

None
1-4
5-8
9-12
13-16
17-20
21-24
25-28
29-35
Over 35

30. AMOUNT OF SUPERVISION I RECEIVE

None
Very Little
Little
Much
Very Much

31. NO. OF HRS. YOU WORK EACH WEEK

32. DO YOU PLAN TO REENLIST?

YES
NO
UNCERTAIN

33. NO. OF MOs I HAVE WORKED OUT OF MY RATING

MONTHS

34. DOES YOUR JOB UTILIZE ALL OF YOUR MOST RECENT NEC TRAINING?

YES
NO
NOT APPLICABLE

35. DO YOU NOW RECEIVE "PRO" PAY?

YES
NO

36. DO YOU PLAN TO CONTINUE YOUR FORMAL EDUCATION WHILE IN SERVICE?

YES
NO
UNCERTAIN

37. DID YOU HAVE ANY OCCUPATIONAL TRAINING PRIOR TO ENTERING THE SERVICE THAT YOU NOW USE IN YOUR JOB?

YES
NO

38. IF YOU ARE EMPLOYED IN AN OFF-DUTY JOB IS IT RELATED TO YOUR RATING OR NAVY TNG?

YES
NO

39. DO YOU PLAN TO USE YOUR NAVY TRAINING IN A CIVILIAN JOB AFTER YOUR RELEASE FROM SERVICE?

YES
NO

40. ARE YOU TAKING CIVILIAN OFF-DUTY COURSES INCLUDING USAFI THAT ARE RELATED TO YOUR JOB?

YES
NO

41. HAVE YOU EVER RECEIVED A VRB PAYMENT?

YES
NO

42. WHAT IS THE MINIMUM EDUCATIONAL GRADE LEVEL REQUIRED IN YOUR JOB?

8th
10th
12th
Above HS

DO NOT MARK IN THIS SPACE

NAVAL OCCUPATIONAL TASK ANALYSIS PROGRAM

TASK RESPONSE SHEET

TASK NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B - 1	HOW MUCH TIME IS SPENT ON TASK?																			
VERY LITTLE																				
BELOW AVERAGE																				
AVERAGE																				
ABOVE AVERAGE																				
VERY MUCH																				
B - 2	HOW WAS TASK LEARNED?																			
ALL FROM SCHOOL TRAINING																				
MOSTLY FROM SCHOOL TRAINING																				
ABOUT 50/50 FROM SCHOOL & EXPER																				
MOSTLY FROM WORK EXPERIENCE																				
ALL FROM WORK EXPERIENCE																				
NON-SERVICE TRAINING & EXPER																				

TASK NUMBER	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
B - 1	HOW MUCH TIME IS SPENT ON TASK?																			
VERY LITTLE																				
BELOW AVERAGE																				
AVERAGE																				
ABOVE AVERAGE																				
VERY MUCH																				
B - 2	HOW WAS TASK LEARNED?																			
ALL FROM SCHOOL TRAINING																				
MOSTLY FROM SCHOOL TRAINING																				
ABOUT 50/50 FROM SCHOOL & EXPER																				
MOSTLY FROM WORK EXPERIENCE																				
ALL FROM WORK EXPERIENCE																				
NON-SERVICE TRAINING & EXPER																				

INSTRUCTIONS

1. Use No. 2 pencil only.
2. Do not use a pen or other pencil.
3. Indicate your response with a solid black mark in the space provided.
4. Erase completely all changes.
5. Do not detach forms from the packet.

—	0
1	1
2	2
3	—
4	4
5	5
6	6
7	7
8	8
9	9

✓ WORKER CHARACTERISTICS OF THE JOB

✓ C. ITEM NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
BELOW AVERAGE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AVERAGE	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
ABOVE AVERAGE	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

GENERAL QUARTERS AND WATCH DUTIES

D. ITEM NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CONDITION I																				
CONDITION III																				
CONDITION IV																				
IN PORT																				

DO NOT MARK IN THIS SPACE

0	0	—	0	0
—	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	—
5	5	5	—	5
6	6	6	6	6
7	—	7	7	7
8	8	8	8	8
9	9	9	9	9

A-5

DC 8840

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NAVAL OCCUPATIONAL TASK ANALYSIS PROGRAM

TASK RESPONSE SHEET

TASK NUMBER	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
B - 1	HOW MUCH TIME IS SPENT ON TASK?																			
VERY LITTLE																				
BELOW AVERAGE																				
AVERAGE																				
ABOVE AVERAGE																				
VERY MUCH																				
B - 2	HOW WAS TASK LEARNED?																			
ALL FROM SCHOOL TRAINING																				
MOSTLY FROM SCHOOL TRAINING																				
ABOUT 50/50 FROM SCHOOL & EXPER																				
MOSTLY FROM WORK EXPERIENCE																				
ALL FROM WORK EXPERIENCE																				
NON-SERVICE TRAINING & EXPER																				

TASK NUMBER	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
B - 1	HOW MUCH TIME IS SPENT ON TASK?																			
VERY LITTLE																				
BELOW AVERAGE																				
AVERAGE																				
ABOVE AVERAGE																				
VERY MUCH																				
B - 2	HOW WAS TASK LEARNED?																			
ALL FROM SCHOOL TRAINING																				
MOSTLY FROM SCHOOL TRAINING																				
ABOUT 50/50 FROM SCHOOL & EXPER																				
MOSTLY FROM WORK EXPERIENCE																				
ALL FROM WORK EXPERIENCE																				
NON-SERVICE TRAINING & EXPER																				

✓ EQUIPMENT, TOOLS, AND SUPPLIES

E. ITEM NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
OPERATE-USE																				
REPAIR																				
BOTH																				

✓ TYPES OF AIRCRAFT

F. ITEM NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
QUALIFIED/WORKING ON NOW																				
QUALIFIED/HAVE WORKED ON																				
QUALIFIED HAVE NOT WORKED ON																				
NOT QUALIFIED/HAVE WORKED ON																				
NOT QUALIFIED/HAVE NOT WORKED ON/LIKE TO																				

INSTRUCTIONS

1. Use No. 2 pencil only.
2. Do not use a pen or other pencil.
3. Indicate your response with a solid black mark in the space provided.
4. Erase completely all changes.
5. Do not detach forms from the packet.

—	0
1	1
2	2
3	3
4	4
5	5
6	6
7	—
8	8
9	9

DO NOT MARK IN THIS SPACE

0	0	—	0	0
—	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	—
5	5	5	—	5
6	6	6	6	6
7	—	7	7	7
8	8	8	8	8
9	9	9	9	9

DC 6644

NAVAL OCCUPATIONAL TASK ANALYSIS PROGRAM

TASK RESPONSE SHEET

TASK NUMBER	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620
B - 1	HOW MUCH TIME IS SPENT ON TASK?																			
VERY LITTLE																				
BELOW AVERAGE																				
AVERAGE																				
ABOVE AVERAGE																				
VERY MUCH																				
B - 2	HOW WAS TASK LEARNED?																			
ALL FROM SCHOOL TRAINING																				
MOSTLY FROM SCHOOL TRAINING																				
ABOUT 50/50 FROM SCHOOL & EXPER																				
MOSTLY FROM WORK EXPERIENCE																				
ALL FROM WORK EXPERIENCE																				
NON-SERVICE TRAINING & EXPER																				

TASK NUMBER	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640
B - 1	HOW MUCH TIME IS SPENT ON TASK?																			
VERY LITTLE																				
BELOW AVERAGE																				
AVERAGE																				
ABOVE AVERAGE																				
VERY MUCH																				
B - 2	HOW WAS TASK LEARNED?																			
ALL FROM SCHOOL TRAINING																				
MOSTLY FROM SCHOOL TRAINING																				
ABOUT 50 50 FROM SCHOOL & EXPER																				
MOSTLY FROM WORK EXPERIENCE																				
ALL FROM WORK EXPERIENCE																				
NON-SERVICE TRAINING & EXPER																				

INSTRUCTIONS

1. Use No. 2 pencil only.
2. Do not use a pen or other pencil.
3. Indicate your response with a solid black mark in the space provided.
4. Erase completely all changes.
5. Do not detach forms from the packet.

MISCELLANEOUS DATA

G. ITEM NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HOW MUCH IS THERE NOW?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HOW MUCH SHOULD THERE BE?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

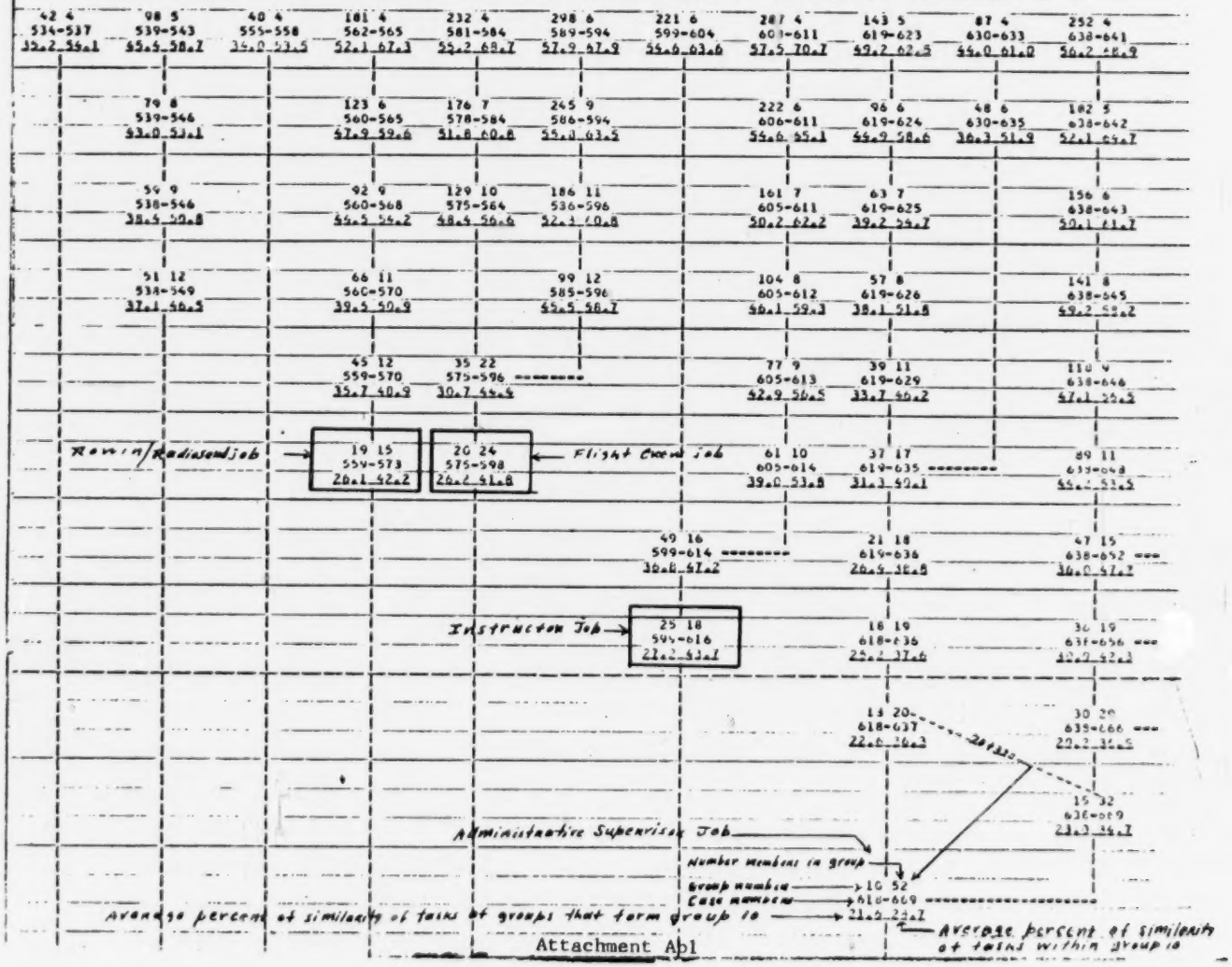
DO NOT MARK IN THIS SPACE

Attachment Ab1

COLUMN 6----------STUDY IDENTIFICATION IS AGALL771.NUMBER OF CASES IS 727.

---- STUDY AGALL771 HIERARCHICAL DIAGRAM OF THE TASK SIMILARITY MATRIX ----

STARTING GROUPS SELECTED FROM PREFERRED BEST OF 60.63 AT STAGE 363,MINIMUM BEST OF 20.00,MINIMUM GROUP MEMBERSHIP OF 4.



Attachment Ab1

STUDY AGALL771 HIERARCHICAL DIAGRAM OF THE TREE STRUCTURE

STARTING GROUPS SELECTED FROM PREFERRED BEST OF 50.42 AT STAGE 363, MINIMUM BEST OF 20.00, MINIMUM GROUP MEMBERSHIP OF 4.

234 4 516-521 44a5_51a1	187 4 528-531 41a7_47a9	152 4 536-539 38a5_50a1	108 5 542-546 31a0_51a5	237 4 547-550 44a1_51a1	339 4 551-554 52a1_62a5	303 6 570-575 [illegible]	763 4 586-591 86a5_19a4	270 4 598-602 46a4_62a0	167 4 607-610 39a0_55a1
196 7 515-521 41a5_52a5	114 5 528-532 33a3_51a0	90 6 536-541 42a0_67a9	145 6 547-552 27a8_33a2	224 6 561-566 43a4_55a5	251 6 570-577 55a0_55a1	131 5 583-592 52a3_67a1	154 6 597-602 33a6_52a9	137 6 605-610 37a6_52a0	
172 10 512-521 33a0_58a5	97 7 526-534 32a0_52a5	62 7 535-541 25a_-_54a1	113 9 547-555 -4a2_46a1	200 7 561-567 41a0_52a1	161 11 570-580 32a0_50a5	129 6 587-592 35a0_52a1	123 7 597-603 32a2_55a0	118 7 604-610 25a5_46a1	
82 11 511-521 31a0_52a5	49 14 528-541 27a5_45a1	66 14 542-555 21a2_31a2		164 8 561-568 40a4_51a4	135 12 569-580 36a1_42a5	77 9 584-592 30a1_46a1	99 14 597-610 32a5_50a0		
75 13 511-523 32a5_52a5		27 17		127 14 559-568 38a1_49a1		48 12 584-595 25a2_39a1	71 15 597-611 32a0_32a1		
67 14 511-524 29a1_50a9				41 27 559-590 22a5_32a5		37 13 584-596 22a9_31a6	69 16 597-612 29a2_38a1		
						34 29 584-612 21a1_22a1			
						20 31 Group 10 61 [illegible]			

A-88

PRINT VAR IN TASK SEQUENCE

USER CASE	CASE NO (Tokens)	ACTIVITY CODE	BILT PNIC	BILT SNFC	P G	SSAN	YR CO	MO CO	S X	N C	PNEC	SNLC	P A	S A	N S	S R	OUT RTN	A I	TD YR	PHO PAY	RE UP	OUT KLQ	CLS ING	WRK FAV	Item No of Office Scanning Packet
616	0106	1467068000	0000	0000	3	2567671184	00	06	1	1	7400	0000	1	8	0	1	06	2	13	2	3	01	00	01	
617	1280	3[illegible]	[illegible]	[illegible]	6	6226[illegible]418	00	06	1	1	7412	7424	1	5	0	1	24	2	15	2	1	06	20	10	
618	0471	6[illegible]411	7426	[illegible]	5	0314[illegible]968	01	01	1	1	0000	0000	7	7	0	4	00	3	12	2	2	02	00	01	
619	0630	6[illegible]1001	0000	[illegible]	4	4016[illegible]578	00	04	1	1	0000	0000	8	8	0	2	00	2	12	2	1	00	16	00	
620	0631	6817001001	0000	[illegible]	7	4993[illegible]719	00	01	1	1	7424	9502	5	5	1	1	18	3	12	2	1	12	22	06	
621	2028	6820002000	7412	0000	7	4579[illegible]948	01	11	1	1	0000	9588	8	8	1	1	18	2	12	2	2	02	00	10	
622	0331	6820009588	0000	0000	5	3735[illegible]063	02	05	1	1	0000	0000	1	1	0	1	00	2	12	2	1	02	16	01	
623	2123	6822002000	7414	0000	7	5643[illegible]149	01	03	1	1	7412	0000	3	8	2	1	00	1	14	2	2	03	57	10	
624	0056	6822001302	0000	0000	4	5334449[illegible]6	00	09	1	1	0000	0000	1	1	0	1	00	3	16	2	2	10	00	00	
625	1296	5774001200	0003	0000	4	0404[illegible]145	00	05	1	1	0000	0000	8	8	0	0	00	3	12	2	2	01	00	00	
626	0406	6817001000	0000	0000	4	2627[illegible]856	02	01	1	1	0000	0000	8	8	0	2	12	2	12	2	2	04	00	00	
627	0063	1467068000	0000	0000	6	1713[illegible]348	01	00	1	1	7424	7414	5	5	0	1	00	2	12	2	1	00	07	00	
628	0[illegible]	1467068000	7424	9502	6	2731[illegible]524	01	04	1	1	7424	9502	5	5	0	1	24	1	08	2	2	12	07	00	
629	0408	6817001000	0000	0000	3	2567[illegible]919	10	09	1	1	0000	0000	8	8	0	1	00	3	16	2	2	10	00	00	
630	0493	3051002000	0000	0000	6	5635[illegible]086	02	00	1	1	7412	7424	3	5	6	1	24	2	11	2	1	06	00	01	
631	0072	0000382830	0000	0000	4	0473[illegible]142	00	10	1	1	0000	0000	1	8	1	1	10	2	14	2	2	01	00	00	
632	2152	0438001430	0000	0000	3	3d5546[illegible]07	00	02	1	1	7414	0000	1	8	0	2	02	2	13	2	2	00	00	00	
633	2225	6820003700	0000	0000	3	2317[illegible]710	00	04	1	1	0000	0000	8	6	0	2	04	2	12	2	2	00	00	00	
634	0126	6822006000	7422	0000	6	4034[illegible]471	01	09	1	1	7422	7424	8	5	1	1	24	1	12	2	1	18	36	01	
635	2125	6822002000	7422	0000	5	5705[illegible]249	03	08	1	1	7423	0000	7	8	0	2	36	2	12	2	1	02	04	01	
636	2266	6820003700	0000	0000	3	1[illegible]5426715	00	09	1	1	7400	0000	1	1	0	1	03	1	12	2	2	01	00	01	
637	2277	6820003700	0000	0000	3	2765[illegible]146	00	02	2	1	0000	0000	1	8	0	1	00	2	12	2	3	00	00	00	
638	0485	6820002000	7426	0000	9	4446[illegible]239	00	11	1	1	0000	0000	8	8	4	2	00	2	12	2	1	03	00	10	
639	0064	1467068000	0003	0000	9	2822[illegible]679	02	01	1	1	0000	0000	3	3	9	1	30	2	14	2	1	06	00	00	
640	1379	0000000000	7412	7414	9	5[illegible]51836	02	09	1	2	7412	7414	3	5	9	1	00	2	12	2	1	39	01	16	
641	1324	6822001207	7412	0000	8	4584[illegible]549	01	01	1	1	0000	9501	8	5	4	0	00	3	12	2	1	00	00	12	
642	2023	6820002000	0000	0000	9	5092[illegible]246	00	10	1	1	0000	9588	8	5	9	1	00	1	12	2	1	02	04	12	
643	0508	6820009500	0000	0000	9	3362[illegible]564	01	02	1	1	0000	0[illegible]	8	8	9	1	15	3	12	2	1	00	00	01	
644	0066	1467068000	9502	0000	7	3892[illegible]520	03	11	1	1	7412	9502	3	8	1	1	00	1	12	2	2	02	04	10	
645	0075	0000382830	9502	0000	9	0162[illegible]354	10	07	1	1	0000	9502	3	5	9	1	24	2	12	2	3	00	06	13	
646	0096	1467068000	9502	0000	8	1522[illegible]857	00	11	1	1	7412	9502	1	5	9	1	00	2	12	2	3	02	04	04	
647	0127	6822006000	0000	0000	9	4742[illegible]021	10	00	1	1	0000	9549	3	5	1	1	99	2	13	2	2	39	00	20	
648	2275	6820003700	0000	0000	9	1402[illegible]469	01	04	1	1	0000	9588	3	8	9	3	20	2	12	2	3	12	20	10	
649	0650	7[illegible]5014600	7412	9501	8	5301[illegible]663	00	05	1	1	7412	9501	3	5	2	0	00	1	13	2	1	00	00	20	
650	0080	1467068000	9502	0000	7	1172[illegible]438	01	10	1	1	0000	9502	3	5	6	1	00	1	12	2	2	01	01	10	
651	0087	1467068000	9506	0000	7	1293[illegible]848	02	00	1	1	0000	9506	3	5	1	1	00	1	16	2	1	12	03	00	
652	0481	6817001000	7412	0000	8	4932[illegible]243	03	01	1	1	7412	9401	3	5	2	1	00	1	15	2	2	06	50	10	
653	1285	5774000200	0000	0000	7	2350[illegible]172	01	00	1	1	0000	0000	3	8	2	2	00	2	12	2	1	08	21	00	
654	1287	5774000200	0000	0000	7	5524[illegible]249	01	05	1	1	0000	0000	3	8	0	0	00	2	14	2	2	01	25	15	
655	1299	5774000200	0000	0000	8	1363[illegible]410	01	10	1	1	0000	0000	3	8	2	0	00	2	12	2	1	06	08	20	
656	1297	5774000200	0000	0000	8	0132[illegible]335	02	00	1	1	0000	0000	3	8	1	0	00	3	12	2	2	03	09	02	
657	1249	6820009500	0000	0000	5	5114[illegible]539	00	05	1	1	0000	0000	8	8	0	1	03	3	16	2	2	03	00	01	
658	0403	6817001000	0000	0000	6	0032[illegible]792	02	04	1	1	7412	0000	3	8	1	2	06	2	13	2	3	03	00	02	
659	1286	5774000200	0000	0000	9	1583[illegible]926	00	09	1	1	7412	7424	3	5	1	1	48	2	12	2	1	01	02	01	
660	1309	6822006000	7412	0000	6	4244[illegible]861	00	03	1	1	7412	7414	3	5	1	3	03	2	13	2	1	12	10	01	
661	1258	6817001000	7422	7412	6	2245[illegible]298	00	01	1	1	7422	7412	7	3	1	3	36	1	12	2	1	02	01	04	
662	0434	6817001000	0000	0000	7	5574[illegible]404	02	03	1	1	7426	7412	7	1	1	1	63	2	12	2	1	06	00	01	
663	0405	6817001000	0000	0000	9	1391[illegible]331	03	10	1	1	7412	7414	3	5	0	1	99	3	15	2	1	03	00	14	
664	0233	6820023000	0000	0000	9	0462[illegible]727	01	06	1	1	0000	9508	8	5	2	1	44	3	09	2	3	03	00	20	
665	0402	6817001000	0000	0000	6	5323[illegible]959	01	00	1	1	7414	0000	3	8	0	1	24	2	12	2	1	02	00	10	
666	1295	5774000200	0000	0000	9	0372[illegible]754	01	04	1	1	0000	0000	3	3	9	1	16	2	12	2	1	12	12	09	
667	1293	5774000200	0000	0000	6	4269[illegible]713	01	10	1	1	0000	0000	8	8	0	1	00	2	14	2	2	03	06	02	
668	1284	5774000200	0000	0000	7	4636[illegible]291	00	02	1	1	0000	0000	3	8	1	1	00	2	12	2	1	06	00	02	
669	2457	6822001200	7412	0000	7	1944[illegible]227	03	11	1	1	0000	7414	3	5	1	2	03	2	14	2	3	01	02	03	
670	1294	5774000200	0000	0000	4	2427[illegible]904	01	02	1	1	0000	0000	3	8	0	4	12	2	12	2	2	03	01	01	
671	2150	0438001400	7424	0000	5	0143[illegible]066	00	07	1	1	7424	0000	5	8	1	2	03	2	12	2	3	00	00	00	
672	0472	6820023411	7426	0000	5	5055[illegible]931	01	06	1	1	7426	7424	8	5	0	1	35	2	11	2	1	10	10	01	
673	0478	6820020411	7426	0000	5	5556[illegible]240	00	06	1	1	7426	0000	7	8	0	1	00	1	13	2	1	06	00	01	
674	0525	6820002000	7422	0000	5	2026[illegible]490	00	10	1	1	7422	0000	7	8	0	3	16	3	16	2	3	03	45	01	
675	0270	6820029000	7423	0000	4	0182[illegible]856	00	08	1	1	7423	0000	7	8	0	3	64	1	12	2	2	18	36	05	

Group 10

ORDERED BY DUTY IDENTIFIERS.

D-TSK	DUTY TITLE
A	DIRECTING AND IMPLEMENTING
B.	ORGANIZING, PLANNING AND SCHEDULING
C	INSPECTING AND EVALUATING
D	TRAINING
E	ADMINISTRATIVE DUTIES
F	SUPPLY DUTIES
G	CONSTRUCTING AND MANUFACTURING
J	MECHANICAL MAINTENANCE
K	MAINTENANCE SUPPORT/SERVICING
L	USE/OPERATE MACHINES AND OTHER EQUIPMENT/DEVICES/TOOLS
N	SECURITY FUNCTIONS
O	GENERAL MILITARY DUTIES
P	MISCELLANEOUS
Q	ANALYSIS AND FORECASTING
R	CODING AND PLOTTING
S	OBSERVATION
T	METHODOLOGY
U	OCEANOGRAPHY AND CLIMATOLOGY
V	COMPUTER PROGRAMMING AND PERIPHERAL EQUIPMENT OPERATION

(NOTE: This is not a separate computer printout.)

AG DUTY TASK TITLES AGALL771 AGTITLES PAGE

FOLLOWING IS A LIST IN ALPHA-NUMERIC ORDER OF ALL TASKS

A--- DIRECTING AND IMPLEMENTING

A 1INCORPORATE EQUIPMENT MODIFICATIONS
A 2CORRELATE DATA WITH JOINT TYPHOON WARNING CENTER
A 3ORGANIZE ANTISUB. WARFARE ENVIRON. PREDICTION SERVICE OPS.
A 4DEVELOP SPECIAL BATHYTHERMOGRAPH CODES
A 5QUALIFY/REQUALIFY COMPUTER OPERATORS
A 6SET UP SPECIAL OPERATIONAL PROJECTS
A 7ASSIGN PERSONNEL FOR DEPLOYMENT
A 8PREPARE JOB ORDERS FOR CIVILIAN PAY
A 9CHECK CIVILIAN PAYROLLS FOR ACCURACY
A 10COORDINATE TUITION AID PROGRAM
A 11APPROVE/DISAPPROVE SPECIAL REQUESTS
A 12CONDUCT PHYSICAL FITNESS PROGRAMS
A 13NOMINATE PERSONNEL FOR SPECIAL RECOGNITION
A 14ASSIGN COLLATERAL DUTIES
A 15PARTICIPATE ON JOB QUALIFICATION BOARDS
A 16CONDUCT REPORTING ADDARD INTERVIEWS
A 17SUPERVISE CIVILIAN PERSONNEL
A 18APPROVE WATCH BILLS
A 19DRAFT TECHNICAL MANUALS/PUBLICATIONS
A 20PREPARE LOCAL DIRECTIVES
A 21NOTIFY ACTIVITIES OF BUDGET AUTHORIZATIONS
A 22CONTROL OPERATING EXPENSES
A 23PREPARE ACCOUNTING BUDGETS
A 24ASSIGN MILITARY DUTIES
A 25CONDUCT ZONE INSPECTIONS

B--- ORGANIZING, PLANNING AND SCHEDULING

B 1SUPERVISE REPAIR OF TIELINE EQUIPMENT
B 2EXCHANGE WEATHER INFO WITH INTERNATIONAL ICE STATIONS
B 3CHECK CHARTS FOR COMPLETENESS
B 4ORIENT MYSELF PRIOR TO ASSUMING WATCH
B 5CHECK SHIPS FORECAST FOLDERS FOR ACCURACY
B 6VERIFY FORECASTS
B 7EXCHANGE ENVIRONMENTAL DATA WITH COMMERCIAL FISHING INDUST.
B 8CONDUCT INTELLIGENCE BRIEFINGS
B 9GIVE WEATHER BRIEFS
B 10ALERT CIVIL DEFENSE OF SEVERE WEATHER
B 11SCHEDULE PERSONNEL FOR TRAINING
B 12DELIVER SEVERE WEATHER WARNINGS
B 13CHECK ACCURACY OF WEATHER RECONNAISSANCE DATA CARDS
B 14REVIEW RADAR PICTURES
B 15ISSUE TRAVEL ADVISORIES
B 16MONITOR OPERATION OF PERIPHERAL COMPUTER EQUIPMENT
B 17COORDINATE ASSIGNMENTS WITH DETAILER
B 18PARTICIPATE ON INTERVIEW BOARDS
B 19ATTEND FLIGHT AUDIT BOARD
B 20ATTEND ADVISORY BOARD MEETINGS
B 21ATTEND RECREATION AND WELFARE COMMITTEE MEETINGS
B 22ATTEND MINORITY AFFAIRS COMMITTEE MEETINGS
B 23ATTEND DISASTER CONTROL MEETINGS
B 24MAINTAIN LIAISON WITH OTHER WEATHER AGENCIES
B 25MAINTAIN LIAISON WITH CIVILIAN CONTRACTORS
B 26ACT AS LIAISON FOR PROJECT TRANSITION
B 27PREPARE ENLISTED PERFORMANCE EVALUATIONS
B 28MAKE ARRANGEMENTS FOR CEREMONIES/INSPECTIONS
B 29MAINTAIN LEAVE SCHEDULES
B 30PREPARE WATCH BILLS
B 31INITIATE WORK REQUESTS
B 32PREPARE SEA-OPERATIONS REPORTS
B 33GIVE WEATHER LECTURES AT LOCAL SCHOOLS
B 34GIVE WEATHER ORIENTATION LECTURES TO STUDENT OFFICERS

C--- INSPECTING AND EVALUATING

C 1CHECK FAX PRODUCTS FOR ACCURACY
C 2PERFORM PRE-OPERATIONAL INSPECTION ON VEHICLES/EQUIPMENT
C 3CHECK BAROMETERS FOR ACCURACY
C 4CHECK EQUIPMENT GEARS FOR EXCESSIVE WEAR
C 5VISUALLY INSPECT ALL PARTS OF EQUIPMENT
C 6EVALUATE SHARPS DATA
C 7PREFLIGHT AIRCRAFT METEOROLOGICAL GEAR
C 8POST FLIGHT AIRCRAFT
C 9AUDIT COFFEE MESS RECORDS
C 10INSPECT SPACES FOR CLEANLINESS
C 11HOLD SECURITY INSPECTIONS OF ASSIGNED SPACES

D--- TRAINING

D 1TURN IN TRAINING DEVICES FOR PREVENTIVE MAINTENANCE
D 2RESEARCH SHIPS RECOGNITION FEATURES
D 3SUPERVISE TRAINING PROGRAMS
D 4WRITE COURSES OF STUDY
D 5WRITE CURRICULUM OUTLINES
D 6WRITE LESSON GUIDES
D 7PREPARE TRAINING LECTURES
D 8CONSTRUCT TRAINING DEVICES
D 9PROOFREAD LESSON GUIDES
D 10ORDER TRAINING FILMS
D 12GIVE TRAINING LECTURES
D 13MAKE UP ON-THE-JOB TRAINING CHECK-OFF SHEETS
D 14ATTEND TRAINING LECTURES
D 15CONDUCT ON-THE-JOB-TRAINING
D 16MAINTAIN THE TRAINING FILM LIBRARY
D 17MAINTAIN TRAINING RECORDS

Case numbers

GROUP NUMBER = 10, ORDERED FROM 618 TO 659 AGALL771 GRP00101 PAGE

AG04 AG TASK JOBDECS FOR 10,17,19,20,22,25,53,67,70,108,109 N

DUTY JOB DESCRIPTION-----CASES= 727-----TASKS= 483-----DUTIES=19-----MEMBERS= 52
SELECTED FROM THE HIERARCHY POSITIONS 618 THROUGH 659----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
ORDERED BY..PERCENT OF MEMBERS PERFORMING.....

D-TSK	DUTY TITLE	****				N
E	ADMINISTRATIVE DUTIES	96.15	39.47	37.95	37.95	
B	ORGANIZING, PLANNING AND SCHEDULING	86.54	13.77	11.92	49.87	
P	MISCELLANEOUS	86.54	8.92	7.72	57.59	
→ A	DIRECTING AND IMPLEMENTING	69.23	11.29	7.81	65.40	
C	INSPECTING AND EVALUATING	63.46	4.25	2.70	68.10	5
F	SUPPLY DUTIES	63.46	13.41	8.51	76.67	
N	SECURITY FUNCTIONS	61.54	6.88	4.24	80.90	
U	GENERAL MILITARY DUTIES	61.54	5.76	3.55	84.45	
D	TRAINING	57.69	10.62	6.13	90.58	
L	USE/OPERATE MACHINES AND OTHER EQUIPMENT/DEVICES/TOOLS	28.84	3.02	0.89	91.47	10
K	MAINTENANCE SUPPORT/SERVICING	28.84	4.38	1.26	92.73	
R	CODING AND PLOTTING	25.00	4.54	1.13	93.86	
U	OCEANOGRAPHY AND CLIMATOLOGY	23.08	5.61	1.29	95.15	
V	COMPUTER PROGRAMMING AND PERIPHERAL EQUIPMENT OPERATION	21.15	13.53	2.86	98.01	
Q	ANALYSIS AND FORECASTING	17.30	4.04	0.70	98.71	15
G	CONSTRUCTING AND MANUFACTURING	9.61	1.44	0.14	98.84	
S	OBSERVATION	9.61	0.18	0.59	99.44	
T	METEOROLOGY	5.77	4.85	0.28	99.72	
J	MECHANICAL MAINTENANCE	5.77	2.93	0.17	99.88	

GROUP NUMBER = 10, ORDERED FROM 618 TO 669 AGALL771 GRP00101 PAGE

AG04 AG TASK JOBDECS FOR 10,17,19,20,22,25,53,67,70,108,109

TASK JOB DESCRIPTION-----CASES= 727-----TASKS= 483-----DUTIES=19-----MEMBERS= 52
SELECTED FROM THE HIERARCHY POSITIONS 618 THROUGH 669----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
ORDERED BY..PERCENT OF MEMBERS PERFORMING.....

D-TSK	TASK TITLE	% ****	%	%	%	N
E 76	FILE CORRESPONDENCE	73.08	3.74	2.74	2.74	
E 38	PROOFREAD REPORTS/CORRESPONDENCE	71.15	4.54	3.23	5.97	
E 72	DRAFT CORRESPONDENCE	59.61	3.33	1.98	7.95	
B 27	PREPARE ENLISTED PERFORMANCE EVALUATIONS	55.77	3.65	2.04	9.99	
B 31	INITIATE WORK REQUESTS	50.00	3.14	1.57	11.55	5
E 77	TYPE FORMS	50.00	3.24	1.62	13.18	
E 30	PREPARE RECURRING REPORTS	48.08	3.76	1.81	14.98	
E 42	READ DAILY MESSAGE TRAFFIC	46.15	3.52	1.62	16.61	
→ A 11	APPROVE/DISAPPROVE SPECIAL REQUESTS	44.23	2.05	0.90	17.51	
P 2	MAKE TROUBLE CALLS	44.23	2.35	1.04	18.56	10
E 74	PREPARE PACKAGES FOR MAILING	44.23	2.87	1.27	19.82	
O 7	STAND PERSONNEL INSPECTIONS	42.30	3.77	1.60	21.42	
E 69	MAINTAIN DIRECTIVES	40.38	3.03	1.22	22.64	
E 71	ROUTE INCOMING CORRESPONDENCE	40.38	3.45	1.39	24.04	
E 67	REQUEST REQUIRED PUBLICATIONS	35.46	2.11	0.81	24.85	15
E 70	MAINTAIN PUBLICATIONS	38.46	2.52	0.97	25.82	
C 10	INSPECT SPACES FOR CLEANLINESS	38.46	3.06	1.17	26.99	
E 28	MAINTAIN BULLETIN BOARDS	36.54	1.79	0.62	27.61	
F 9	INVENTORY SUPPLIES	36.54	3.41	1.24	28.85	
E 1	REQUISITION SUPPLIES	36.54	2.22	1.24	29.22	20
N 3	DESTROY CLASSIFIED MATERIAL	34.61	3.06	1.06	30.98	
→ A 13	NOMINATE PERSONNEL FOR SPECIAL RECOGNITION	34.61	1.76	0.61	31.58	
→ A 14	ASSIGN COLLATERAL DUTIES	34.61	1.80	0.64	32.22	
E 45	PREPARE MESSAGES	34.61	3.96	1.37	33.60	
E 65	MAINTAIN TECHNICAL PUBLICATIONS LIBRARY	34.61	2.10	0.75	34.34	25
E 73	TYPE NAVAL CORRESPONDENCE	34.61	2.74	0.95	35.29	
B 4	SUPERVISE TRAINING PROGRAMS	34.61	3.00	1.04	36.33	
M 7	WORK ON SPECIAL PROJECTS FOR CIVILIAN/GOVERN. AGENCIES	32.69	4.55	1.49	37.82	
B 20	ATTEND ADVISORY BOARD MEETINGS	32.69	2.67	0.87	38.69	
E 33	ORDER LOCAL FORMS	32.69	1.83	0.60	39.32	30
E 35	MAINTAIN ORGANIZATION CHARTS	32.69	2.90	0.95	40.27	
E 75	PRINT MAILING LABELS	32.69	3.25	1.06	41.34	
F 7	INVENTORY EQUIPMENT	32.69	2.22	0.72	42.06	
F 11	STOW/BREAK-OUT SUPPLIES	32.69	4.90	1.60	43.66	
E 32	SIGN OFF PRACTICAL FACTORS	30.77	1.73	0.53	44.19	35
E 79	MAIL OFFICIAL LETTERS/PACKAGES	30.77	3.69	1.13	45.32	

GROUP NUMBER = 10, ORDERED FROM 618 TO 669 AGALL771 GRPC0101 PAGE

	D-TSK	TASK TITLE	% ****	%	%	%	N
	B	24MAINTAIN LIAISON WITH OTHER WEATHER AGENCIES	28.84	2.22	0.64	45.96	
	E	31PREPARE/MAINTAIN WATCH QUARTER AND STATION BILL	28.84	2.00	0.58	46.54	
	O	1PARTICIPATE IN PHYSICAL FITNESS PROGRAMS	28.84	1.31	0.38	46.92	
	N	4PREPARE CLASSIFIED MATERIAL FOR DESTRUCTION	28.84	2.90	0.84	47.75	40
	P	24PICK-UP/DELIVER MESSAGES	28.84	3.97	1.14	48.90	
	E	61MAINTAIN TICKLER FILES	28.84	2.47	0.71	49.61	
	O	14ATTEND TRAINING LECTURES	28.84	4.70	1.36	50.96	
	C	11HOLD SECURITY INSPECTIONS OF ASSIGNED SPACES	28.84	3.06	0.88	51.84	
→	A	17SUPERVISE CIVILIAN PERSONNEL	28.92	2.92	0.78	52.63	45
	P	27CONDUCT TOURS OF WEATHER OFFICE SPACES	26.92	1.43	0.38	53.01	
	B	17COORDINATE ASSIGNMENTS WITH DETAILER	25.00	2.42	0.60	53.62	
→	A	16CONDUCT REPORTING ABOARD INTERVIEWS	25.00	2.20	0.55	54.16	
	F	34PREPARE RECALL BILLS	25.00	1.53	0.38	54.54	
	E	43TYPE NAVAL MESSAGES	25.00	2.74	0.68	55.23	50
	E	36MAINTAIN DIVISION OFFICERS NOTEBOOK	25.00	1.97	0.49	55.72	
→	A	20PREPARE LOCAL DIRECTIVES	25.00	1.89	0.47	56.19	
	B	11SCHEDULE PERSONNEL FOR TRAINING	25.00	1.97	0.49	56.68	
	F	14MAKE SERV-MART RUNS	25.00	2.73	0.68	57.35	
→	A	24ASSIGN MILITARY DUTIES	22.22	2.48	0.62	57.98	55
	B	18PARTICIPATE ON INTERVIEW BOARDS	23.08	2.04	0.47	58.44	
	B	30P[illegible]ARE WATCH BILLS	23.08	2.04	0.47	58.92	
	N	1 [illegible]NTORY CLASSIFIED MATERIAL	23.08	2.98	0.68	59.60	
	E	66[illegible]NTAIN READ AND INITIAL BOARDS	23.08	2.18	0.50	60.10	
	D	15CONDUCT ON-THE-JOB-TRAINING	23.08	2.46	0.56	60.66	60
	F	12ISSUE SUPPLIES	23.08	3.66	0.89	61.55	
	B	21ATTEND RECREATION AND WELFARE COMMITTEE MEETINGS	21.15	4.60	0.97	62.52	
	E	20PREPARE SITUATION REPORTS	21.15	4.24	0.90	63.42	
	B	28MAKE ARRANGEMENTS FOR CEREMONIES/INSPECTIONS	21.15	3.27	0.69	64.11	
	E	65COLLATE PUBLICATIONS FOR DISTRIBUTION	21.15	3.42	2.72	64.84	65
	F	2SCREEN SUPPLY REQUISITIONS	21.15	2.36	0.50	65.33	
	D	17MAINTAIN TRAINING RECORDS	21.15	2.64	0.56	65.89	
	E	81ORDER CORRESPONDENCE COURSES	21.15	1.34	0.28	66.17	
	P	21TURN IN OFFICE EQUIPMENT FOR REPAIR	19.23	1.70	0.32	66.49	
	C	9AUDIT GALLEY MESS RECORDS	19.23	1.88	0.36	66.85	70
	N	2REGISTER MAIL	19.23	3.66	0.70	67.56	
	B	29MAINTAIN LEAVE SCHEDULES	19.23	1.73	0.33	67.89	
	E	80MAINTAIN LOG BOOKS	19.23	1.90	0.36	68.25	
	D	12GIVE TRAINING LECTURES	19.23	1.66	0.32	68.57	
	E	13ADVISE PERSONNEL ON PROCEDURES FOR ORDERING SUPPLIES	19.23	1.82	0.35	68.92	75
	P	34MOVE OFFICE FURNITURE	19.23	1.91	0.37	69.28	
	N	5SECURE ASSIGNED SPACES	19.23	2.41	0.46	69.74	
	O	10ESCORT INSPECTING PARTIES	19.23	1.94	0.37	70.12	
	F	16PACKAGE MAPS AND CHARTS FOR STORAGE	17.30	3.54	0.61	70.73	
	E	14MAINTAIN CLIMATALOGICAL RECORDS	17.30	3.34	0.58	71.30	80
→	A	12CONDUCT PHYSICAL FITNESS PROGRAMS	17.30	1.70	0.29	71.60	
	E	59VERIFY SERVICE RECORDS	17.30	1.44	0.25	71.84	

cut off point 19.23 thru 1.92

Case numbers

GROUP NUMBER = 10,ORDERED FROM 618 TO 669 AGALL771 GRP0C103 PAGE

AG04 AG TASK JOBDECS FOR 10,17,19,20,22,25,53,67,70,108,109

DUTY JOB DESCRIPTION-----CASES= 727-----TASKS= 484-----DUTIES=19-----MEMBERS= 52
SELECTED FROM THE HIERARCHY POSITIONS 618 THROUGH 669----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
ORDERED BY.....AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
PERCENT OF MEMBERS PERFORMING.....

D-TSK	DUTY TITLE	X	Y ****	Z	N	
E	ADMINISTRATIVE DUTIES	96.15	39.47	37.95	37.95	
B	ORGANIZING, PLANNING AND SCHEDULING	86.54	13.77	11.92	49.87	
F	SUPPLY DUTIES	63.46	13.41	8.51	58.38	
A	DIRECTING AND IMPLEMENTING	69.23	11.29	7.81	66.19	
P	MISCELLANEOUS	86.54	8.92	7.72	73.91	5
D	TRAINING	57.69	11.62	6.13	80.04	
N	SECURITY FUNCTIONS	61.54	6.88	4.24	84.27	
O	GENERAL MILITARY DUTIES	61.54	5.76	3.55	87.82	
V	COMPUTER PROGRAMMING AND PERIPHERAL EQUIPMENT OPERATION	21.15	13.53	2.86	90.68	
C	INSPECTING AND EVALUATING	63.46	4.35	2.76	93.44	10
U	OCEANOGRAPHY AND CLIMATOLOGY	23.08	5.61	1.29	94.73	
K	MAINTENANCE SUPPORT/SERVICING	28.84	4.36	1.26	95.99	
R	CODING AND PLOTTING	25.00	4.54	1.13	97.12	
L	USE/OPERATE MACHINES AND OTHER EQUIPMENT/DEVICES/TOOLS	28.84	3.09	0.89	98.01	
Q	ANALYSIS AND FORECASTING	17.30	4.40	0.70	98.71	15
S	OBSERVATION	9.61	6.16	0.59	99.30	
T	METEOROLOGY	5.77	4.85	0.28	99.58	
J	MECHANICAL MAINTENANCE	5.77	2.93	0.17	99.75	
G	CONSTRUCTING AND MANUFACTURING	9.61	1.44	0.14	99.88	

GROUP NUMBER = 10, ORDERED FROM 618 TO 669 AGALL771 GRP00103 PAGE

AGG4 AG TASK JOBDECS FOR 10,17,19,20,22,25,53,67,70,108,109

TASK JOB DESCRIPTION-----CASES= 727-----TASKS= 483-----DUTIES=19-----MEMBERS= 52
SELECTED FROM THE HIERARCHY POSITIONS 618 THROUGH 669----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
ORDERED BY.....AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
PERCENT OF MEMBERS PERFORMING.....

D-TSK	TASK TITLE	%	%	**** %	%	N
E 38	PROOFREAD REPORTS/CORRESPONDENCE	71.15	4.54	3.23	3.23	
E 76	FILE CORRESPONDENCE	73.38	3.74	2.74	5.97	
B 27	PREPARE ENLISTED PERFORMANCE EVALUATIONS	55.77	3.65	2.04	8.00	
E 72	DRAFT CORRESPONDENCE	59.61	3.33	1.98	9.99	
E 32	PREPARE RECURRING REPORTS	48.08	3.76	1.81	11.80	5
E 42	READ DAILY MESSAGE TRAFFIC	46.15	3.52	1.62	13.42	
E 77	TYPE FORMS	50.00	3.24	1.62	15.04	
F 11	STOW/BREAK-OUT SUPPLIES	32.69	4.90	1.60	16.64	
O 7	STAND PERSONNEL INSPECTIONS	42.30	3.77	1.60	18.24	
B 31	INITIATE WORK REQUESTS	50.00	3.14	1.57	19.80	10
P 7	WORK ON SPECIAL PROJECTS FOR CIVILIAN/GOVERN. AGENCIES	32.69	4.55	1.49	21.29	
E 71	ROUTE-INCOMING CORRESPONDENCE	40.38	3.45	1.39	22.69	
E 45	PREPARE MESSAGES	34.61	3.55	1.37	24.06	
D 14	ATTEND TRAINING LECTURES	26.84	4.70	1.36	25.41	
E 74	PREPARE PACKAGES FOR MAILING	44.23	2.87	1.27	26.62	15
F 9	INVENTORY SUPPLIES	36.54	3.41	1.24	27.92	
E 69	MAINTAIN DIRECTIVES	40.38	3.03	1.22	29.15	
C 10	INSPECT SPACES FOR CLEANLINESS	38.46	3.06	1.17	30.32	
P 24	PICK-UP/DELIVER MESSAGES	28.84	3.97	1.14	31.46	
E 79	MAIL OFFICIAL LETTERS/PACKAGES	30.77	3.69	1.14	32.60	20
E 75	PRINT MAILING LABELS	32.69	3.26	1.06	33.66	
F 10	REQUISITION SUPPLIES	36.54	2.92	1.06	34.72	
N 3	DESTROY CLASSIFIED MATERIAL	34.61	3.06	1.06	35.78	
P 23	TAKE TROUBLE CALLS	44.23	2.36	1.04	36.83	
D 25	SUPERVISE TRAINING PROGRAMS	34.61	3.00	1.04	37.88	25
P 29	HOLD FIELD DAY	17.30	6.01	1.04	38.93	
B 21	ATTEND RECREATION AND WELFARE COMMITTEE MEETINGS	21.15	4.60	0.97	39.88	
E 70	MAINTAIN PUBLICATIONS	38.46	2.52	0.97	40.84	
E 35	MAINTAIN ORGANIZATION CHARTS	32.69	2.90	0.95	41.79	
E 73	TYPE NAVAL CORRESPONDENCE	34.61	2.74	0.95	42.74	30
A 11	APPROVE/DISAPPROVE SPECIAL REQUESTS	44.23	2.05	0.90	43.64	
E 29	PREPARE SITUATION REPORTS	21.15	4.24	0.90	44.54	
F 12	ISSUE SUPPLIES	23.08	3.86	0.89	45.43	
C 11	HOLD SECURITY INSPECTIONS OF ASSIGNED SPACES	28.84	3.06	0.88	46.31	
B 20	ATTEND ADVISORY BOARD MEETINGS	32.69	2.67	0.87	47.18	35
N 4	PREPARE CLASSIFIED MATERIAL FOR DESTRUCTION	28.84	2.90	0.84	48.02	

GROUP NUMBER = 10, ORDERED FROM 618 TO 669 AGALL771 GRPOQ103 PAGE

D-TSK	TASK TITLE	%	↓	Σ ****	%	N
E	67REQUEST REQUIRED PUBLICATIONS	38.46	2.11	0.81	43.83	
→ A	17SUPERVISE CIVILIAN PERSONNEL	28.92	2.92	0.76	49.61	
E	69MAINTAIN TECHNICAL PUBLICATIONS LIBRARY	34.61	2.16	0.75	50.36	
E	7INVENTORY EQUIPMENT	32.69	2.22	0.72	51.08	40
E	65COLLATE PUBLICATIONS FOR DISTRIBUTION	21.15	3.42	0.72	51.80	
E	61MAINTAIN TICKLER FILES	28.84	2.47	0.71	52.52	
N	2REGISTER MAIL	19.23	3.66	0.70	53.22	
B	28MAKE ARRANGEMENTS FOR CEREMONIES/INSPECTIONS	21.15	3.27	0.69	53.91	
E	63TYPE NAVAL MESSAGES	22.20	2.74	0.68	54.60	45
N	1INVENTORY CLASSIFIED MATERIAL	23.08	2.68	0.68	55.28	
F	14MAKE SERV-MART RUNS	26.00	2.73	0.68	55.96	
→ A	14ASSIGN COLLATERAL DUTIES	34.61	1.86	0.64	56.60	
B	24MAINTAIN LIAISON WITH OTHER WEATHER AGENCIES	28.84	2.22	0.64	57.24	
E	33DRAFT LOCAL PUBS	32.20	1.94	0.63	57.87	50
E	26MAINTAIN BULLETIN BOARDS	30.54	1.70	0.62	58.49	
V	28ENSURE COMPUTER PRODUCTS ARE USEABLE AND UP TO DATE	7.69	8.09	0.62	59.11	
→ A	24ASSIGN MILITARY DUTIES	25.00	2.48	0.62	59.73	
F	16PACKAGE MAPS AND CHARTS FOR STORAGE	17.30	3.54	0.61	60.34	
→ A	14NOMINATE PERSONNEL FOR SPECIAL RECOGNITION	34.61	1.76	0.61	60.95	55
E	44LOG INCOMING/OUTGOING MESSAGES	15.38	3.97	0.61	61.56	
B	17COORDINATE ASSIGNMENTS WITH DETAILER	25.00	2.42	0.60	62.16	
E	14MAINTAIN CLIMATALOGICAL RECORDS	17.30	3.34	0.58	62.74	
E	31PREPARE/MAINTAIN WATCH QUARTER AND STATION BILL	28.84	2.00	0.58	63.31	
D	15CONDUCT ON-THE-JOB-TRAINING	23.08	2.49	0.56	63.88	60
D	17MAINTAIN TRAINING RECORDS	21.15	2.64	0.56	64.43	
→ A	16CONDUCT REPORTING ABOARD INTERVIEWS	25.00	2.20	0.55	64.98	
E	32SIGN OFF PRACTICAL FACTORS	30.77	1.73	0.53	65.51	
F	2SCREEN SUPPLY REQUISITIONS	21.15	2.36	0.50	66.01	
E	66MAINTAIN READ AND INITIAL BOARDS	23.08	2.18	0.50	66.51	65
U	6PREPARE CLIMATALOGICAL REPORTS	15.38	3.25	0.50	67.01	
B	11SCHEDULE PERSONNEL FOR TRAINING	25.00	1.97	0.49	67.50	
E	36MAINTAIN DIVISION OFFICERS NOTEBOOK	25.00	1.97	0.49	67.99	
B	30PREPARE WATCH BILLS	23.08	2.04	0.47	68.46	
B	18PARTICIPATE ON INTERVIEW BOARDS	23.08	2.04	0.47	68.93	70
→ A	20PREPARE LOCAL DIRECTIVES	25.00	1.88	0.47	69.40	
N	5SECURE ASSIGNED SPACES	19.23	2.41	0.46	69.86	
V	29CORRECT COMPUTER PRODUCTS MANUALLY	9.61	4.79	0.46	70.32	
U	4PERFORM AS MEMBER OF A WORKING PARTY	7.69	6.03	0.46	70.78	
O	9PERFORM AS MEMBER OF A AD/MAT INSPECTION TEAM	5.77	7.68	0.44	71.22	75
D	9PROOFREAD LESSON GUIDES	15.38	2.78	0.42	71.64	
P	27CONDUCT TOURS OF WEATHER OFFICE SPACES	26.92	1.43	0.38	72.03	
E	34PREPARE RECALL BILLS	25.00	1.53	0.38	72.41	
E	39MAINTAIN EQUIPMENT STATUS RECORDS	15.38	2.49	0.38	72.79	
O	1PARTICIPATE IN PHYSICAL FITNESS PROGRAMS	23.64	1.31	0.38	73.16	80
U	10ESCORT INSPECTING PARTIES	19.23	1.94	0.37	73.54	
→ A	19DRAFT TECHNICAL MANUALS/PUBLICATIONS	9.61	3.90	0.37	73.91	

JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

DUTY JOB DESCRIPTION——CASES= 727——TASKS= 483——DUTIES=19——MEMBERS= 4
GROUP 10 PAYGRADE E-3
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 618 THROUGH 669——FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
V008/EQ/ 3/ INCUMBENT PAYGRADE

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
ORDERED BY..PERCENT OF MEMBERS PERFORMING.....

D-TSK	DUTY TITLE	% ****	%	%	%	N
F	SUPPLY DUTIES	100.00	40.38	40.38	40.38	
P	MISCELLANEOUS	75.00	22.22	16.66	57.04	
D	GENERAL MILITARY DUTIES	75.00	8.91	6.68	63.72	
E	ADMINISTRATIVE DUTIES	50.00	20.25	10.12	73.85	
C	INSPECTING AND EVALUATING	25.00	20.83	5.20	79.05	5
K	MAINTENANCE SUPPORT/SERVICING	25.00	22.50	5.62	84.68	
B	ORGANIZING, PLANNING AND SCHEDULING	25.00	25.64	6.41	91.08	
L	USE/OPERATE MACHINES AND OTHER EQUIPMENT/DEVICES/TOOLS	25.00	2.50	0.62	91.71	
N	SECURITY FUNCTIONS	25.00	10.00	2.50	94.20	
R	CODING AND PLOTTING	25.00	20.31	5.12	99.33	10
U	OCEANOGRAPHY AND CLIMATOLOGY	25.00	2.56	0.64	99.97	

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JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

TASK JOB DESCRIPTION----CASES= 727----TASKS= 483----DUTIES=19----MEMBERS= 4
GROUP 10 PAYGRADE E-3
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 618 THROUGH 669----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
V008/EQ/ 3/ 1INCUMBENT PAYGRADE

		COUNT OF DUTIES OR TASKS LISTED	CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS	AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING	
		ORDERED BY..PERCENT OF MEMBERS PERFORMING				
D-TSK	TASK TITLE	% ****	%	%	%	N
F 9	INVENTORY SUPPLIES	75.00	10.00	7.50	7.50	
F 11	STOW/BREAK-OUT SUPPLIES	75.00	15.92	11.94	19.43	
F 16	PACKAGE MAPS AND CHARTS FOR STORAGE	50.00	6.34	3.17	22.60	
F 10	REQUISITION SUPPLIES	50.00	6.38	3.19	25.79	
E 12	ISSUE SUPPLIES	50.00	14.58	7.29	33.08	5
F 14	MAKE SERV-MART RUNS	50.00	8.75	4.37	37.45	
P 36	MOVE OFFICE FURNITURE	50.00	4.58	2.29	39.74	
D 7	STAND PERSONNEL INSPECTIONS	50.00	3.36	1.68	41.42	
P 29	HOLD FIELD DAY	50.00	17.91	8.96	50.38	
E 2	FILE TELETYPE MESSAGES	25.00	2.28	0.84	51.02	10
K 9	FUEL VEHICLES/EQUIPMENT	25.00	7.50	1.87	52.89	
K 10	WASH VEHICLES/EQUIPMENT	25.00	7.50	1.87	54.76	
K 11	WAX VEHICLES	25.00	7.50	1.87	56.63	
L 1	TEAR TELETYPE PAPER	25.00	2.50	0.62	57.26	
S 11	PLOT SURFACE CHARTS	25.00	7.69	1.92	59.18	15
B 5	CHECK SHIPS FORECAST FOLDERS FOR ACCURACY	25.00	12.82	3.20	62.38	
B 6	VERIFY FORECASTS	25.00	12.82	3.20	65.58	
L 14	MAINTAIN CLIMATALOGICAL RECORDS	25.00	2.56	0.64	66.22	
U 6	PREPARE CLIMATALOGICAL REPORTS	25.00	2.56	0.64	66.86	
E 28	MAINTAIN BULLETIN BOARDS	25.00	2.56	0.65	67.50	20
N 2	REGISTER MAIL	25.00	10.00	2.50	70.00	
E 43	TYPE NAVAL MESSAGES	25.00	2.56	0.64	70.64	
P 24	PICK-UP/DELIVER MESSAGES	25.00	10.00	2.50	73.14	
E 08	MAINTAIN TECHNICAL PUBLICATIONS LIBRARY	25.00	2.56	0.64	73.78	
E 7	MAINTAIN PUBLICATIONS	25.00	2.56	0.64	74.42	25
E 74	PREPARE PACKAGES FOR MAILING	25.00	5.00	1.25	75.66	
E 75	PRINT MAILING LABELS	25.00	2.50	0.62	76.29	
E 77	TYPE FORMS	25.00	5.12	1.28	77.57	
I 79	MAIL OFFICIAL LETTERS/PACKAGES	25.00	10.00	2.50	80.06	
E 71	INVENTORY EQUIPMENT	25.00	5.16	1.04	81.10	30
E 1	HANG/POST TELETYPE PAPER	25.00	2.50	0.62	81.73	
F 15	MAINTAIN THE LINEN LOCKER	25.00	7.50	1.87	83.60	

JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

DUTY JOB DESCRIPTION----CASES= 727----TASKS= 483----DUTIES=19----MEMBERS= 4
GROUP 10 PAYGRADE E-3
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 618 THROUGH 669----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
VOOB/EO/ 3/ INCUMBENT PAYGRADE

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
ORDERED BY.....AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
PERCENT OF MEMBERS PERFORMING.....

D-TSK	DUTY TITLE	%	%	% ****	%	N
F	SUPPLY DUTIES	100.00	40.38	40.38	40.38	
P	MISCELLANEOUS	75.00	22.22	16.66	57.04	
E	ADMINISTRATIVE DUTIES	50.00	20.25	10.12	67.17	
O	GENERAL MILITARY DUTIES	75.00	8.91	6.68	73.85	
B	ORGANIZING, PLANNING AND SCHEDULING	25.00	22.64	6.41	80.26	5
K	MAINTENANCE SUPPORT/SERVICING	25.00	22.50	5.62	85.88	
C	INSPECTING AND EVALUATING	25.00	20.83	5.20	91.08	
R	CODING AND PLOTTING	25.00	20.51	5.12	96.21	
N	SECURITY FUNCTIONS	25.00	10.00	2.50	98.70	
H	OCEANOGRAPHY AND CLIMATOLOGY	25.00	2.58	0.64	99.35	10
L	USE/OPERATE MACHINES AND OTHER EQUIPMENT/DEVICES/TOOLS	25.00	2.50	0.62	99.97	

JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

TASK JOB DESCRIPTION———CASES= 727———TASKS= 483———DUTIES=19———MEMBERS= 4
GROUP 10 PAYGRADE E-3
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 618 THROUGH 669———FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
V008/EQ/ 3/ :INCUMBENT PAYGRADE

	COUNT OF DUTIES OR TASKS LISTED				
	CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS				
ORDERED BY.....AVERAGE PERCENT TIME SPENT BY ALL MEMBERS					
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING					
PERCENT OF MEMBERS PERFORMING					
D-TSK TASK TITLE	%	%	%	%	N
F 1ISTOW/BREAK-OUT SUPPLIES	75.00	15.92	11.94	11.94	
P 29HOLD FIELD DAY	50.00	17.91	8.96	20.89	
F 9INVENTORY SUPPLIES	75.00	10.00	7.50	28.39	
F 12ISSUE SUPPLIES	50.00	14.58	7.29	35.68	
C 10INSPECT SPACES FOR CLEANLINESS	25.00	20.83	5.20	40.88	5
O 4PERFORM AS MEMBER OF A WORKING PARTY	25.00	20.00	5.00	45.88	
F 14MAKE SERV-MART RUNS	50.00	8.75	4.37	50.25	
B 5CHECK SHIPS FORECAST FOLDERS FOR ACCURACY	25.00	12.82	3.20	53.45	
B 6VERIFY FORECASTS	25.00	12.82	3.20	56.66	
B 2IBANSFER TELETYPE MESSAGE INFORMATION TO DATA SHEETS	25.00	12.82	3.20	59.86	10
F 10REQUISITION SUPPLIES	50.00	6.38	3.19	63.05	
F 16PACKAGE MAPS AND CHARTS FOR STORAGE	50.00	6.34	3.17	66.22	
N 2REGISTER MAIL	25.00	10.00	2.50	68.72	
P 24PICK-UP/DELIVER MESSAGES	25.00	10.00	2.50	71.21	
E 7SMAIL OFFICIAL LETTERS/PACKAGES	25.00	10.00	2.50	73.71	15
P 38MOVE OFFICE FURNITURE	50.00	4.58	2.29	76.00	
R 11PLOT SURFACE CHARTS	25.00	7.69	1.92	77.92	
K 11WAX VEHICLES	25.00	7.50	1.87	79.79	
K 10WASH VEHICLES/EQUIPMENT	25.00	7.50	1.87	81.66	
E 13MAINTAIN THE LINEN LOCKER	25.00	7.50	1.87	83.53	20
K 9FUEL VEHICLES/EQUIPMENT	25.00	7.50	1.87	85.40	
O 7STAND PERSONNEL INSPECTIONS	50.00	3.36	1.68	87.08	
E 7TYPE FORMS	25.00	5.12	1.28	88.36	
E 7&PREPARE PACKAGES FOR MAILING	25.00	5.00	1.25	89.61	
P 35EXCHANGE LINEN	25.00	5.00	1.25	90.86	25
F 7INVENTORY EQUIPMENT	25.00	4.16	1.04	91.90	
P 28PAINT	25.00	4.16	1.04	92.94	
U 6PREPARE CLIMATALOGICAL REPORTS	25.00	2.56	0.64	93.58	
E 68MAINTAIN TECHNICAL PUBLICATIONS LIBRARY	25.00	2.56	0.64	94.22	
E 28MAINTAIN BULLETIN BOARDS	25.00	2.56	0.64	94.86	30
E 2FILE TELETYPE MESSAGES	25.00	2.56	0.64	95.50	
E 14MAINTAIN CLIMATALOGICAL RECORDS	25.00	2.56	0.64	96.14	

JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

DUTY JOB DESCRIPTION-----CASES= 727-----TASKS= 483-----DUTIES=19-----MEMBERS= 4
GROUP 10 PAYGRADE E-3
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 618 THROUGH 669-----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
V008/EQ/ 3/ INCUMBENT PAYGRADE

ORDERED BY DUTY IDENTIFIERS.

√	D-TSK ****	DUTY TITLE	COUNT OF DUTIES OR TASKS LISTED. %	CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.. %	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS. %	AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING. %	PERCENT OF MEMBERS PERFORMING. %	N
	B	ORGANIZING, PLANNING AND SCHEDULING	25.00	25.64	6.41	6.41		
	C	INSPECTING AND EVALUATING	25.00	20.83	5.20	11.61		
	E	ADMINISTRATIVE DUTIES	50.00	20.25	10.12	21.74		
	F	SUPPLY DUTIES	100.00	40.38	40.38	62.12		
	K	MAINTENANCE SUPPORT/SERVICING	25.00	22.50	5.62	67.74		5
	L	USE/OPERATE MACHINES AND OTHER EQUIPMENT/DEVICES/TOOLS	25.00	2.50	0.62	68.36		
	N	SECURITY FUNCTIONS	25.00	10.00	2.50	70.86		
	O	GENERAL MILITARY DUTIES	75.00	8.91	6.68	77.54		
	P	MISCELLANEOUS	75.00	22.22	16.66	94.20		
	R	CODING AND PLOTTING	25.00	20.51	5.12	99.33		10
	U	OCEANOGRAPHY AND CLIMATOLOGY	25.00	2.56	0.64	99.97		

JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

TASK JOB DESCRIPTION-----CASES= 727-----TASKS= 483-----DUTIES=19-----MEMBERS= 4
GROUP 10 PAYGRADE E-3
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 618 THROUGH 667-----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
V008/EQ/ 3/ =INCUMBENT PAYGRADE

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
PERCENT OF MEMBERS PERFORMING.....

ORDERED BY TASK IDENTIFIERS.

O-TSK **** TASK TITLE					
B 5CHECK SHIPS FORECAST FOLDERS FOR ACCURACY	25.00	12.82	3.20	3.20	
B 6VERIFY FORECASTS	25.00	12.82	3.20	6.41	
C 10INSPECT SPACES FOR CLEANLINESS	25.00	20.83	5.20	11.61	
E 1HANG/POST TELETYPE PAPER	25.00	2.50	0.62	12.24	
E 2FILE TELETYPE MESSAGES	25.00	2.56	0.64	12.88	5
E 14MAINTAIN CLIMATALOGICAL RECORDS	25.00	2.56	0.64	13.52	
E 28MAINTAIN BULLETIN BOARDS	25.00	2.56	0.64	14.16	
E 43TYPE NAVAL MESSAGES	25.00	2.56	0.64	14.80	
E 68MAINTAIN TECHNICAL PUBLICATIONS LIBRARY	25.00	2.56	0.64	15.44	
E 70MAINTAIN PUBLICATIONS	25.00	2.56	0.64	16.08	10
E 74PREPARE PACKAGES FOR MAILING	25.00	5.00	1.25	17.32	
E 75PRINT MAILING LABELS	25.00	2.50	0.62	17.95	
E 77TYPE FORMS	25.00	5.12	1.28	19.23	
E 79MAIL OFFICIAL LETTERS/PACKAGES	25.00	10.00	2.50	21.72	
F 7INVENTORY EQUIPMENT	22.08	9.19	1.04	22.76	15
F 9INVENTORY SUPPLIES	75.00	10.00	7.50	30.26	
F 10REQUISITION SUPPLIES	50.00	6.38	3.19	33.45	
F 11STOW/BREAK-OUT SUPPLIES	75.00	15.92	11.94	45.38	
F 12ISSUE SUPPLIES	50.00	14.58	7.29	52.67	
F 14MAKE SERV-MART RUNS	50.00	8.73	4.37	57.04	20
F 15MAINTAIN THE LINEN LOCKER	25.00	7.50	1.87	58.92	
F 16PACKAGE MAPS AND CHARTS FOR STORAGE	50.00	6.34	3.17	62.09	
K 9FUEL VEHICLES/EQUIPMENT	25.00	7.50	1.87	63.96	
K 10WASH VEHICLES/EQUIPMENT	25.00	7.50	1.87	65.83	
K 11WAX VEHICLES	25.00	7.50	1.87	67.70	25
L 1TEAR TELETYPE PAPER	25.00	2.50	0.62	68.33	
N 2REGISTER MAIL	25.00	10.00	2.50	70.82	
O 4PERFORM AS MEMBER OF A WORKING PARTY	25.00	20.00	5.00	75.82	
O 7STAND PERSONNEL INSPECTIONS	50.00	3.36	1.68	77.50	
P 24PICK-UP/DELIVER MESSAGES	25.00	10.00	2.50	80.00	30
P 26PAINT	25.00	4.16	1.04	81.04	
P 29HOLD FIELD DAY	50.00	17.91	8.96	89.99	

JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

DUTY JOB DESCRIPTION----CASES= 727----TASKS= 483----DUTIES=19----MEMBERS= 11
GROUP 10 PAYGRADE E-9
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 618 THROUGH 669----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
V008/EQ/ 9/ :INCUMBENT PAYGRADE

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
ORDERED BY..PERCENT OF MEMBERS PERFORMING.....

D-TSK	DUTY TITLE	% ****	%	%	%	N
E	ADMINISTRATIVE DUTIES	100.00	37.91	37.91	37.91	
B	ORGANIZING, PLANNING AND SCHEDULING	100.00	18.58	18.58	56.50	
P	MISCELLANEOUS	90.91	6.90	6.27	62.76	
A	DIRECTING AND IMPLEMENTING	90.91	19.73	17.94	80.70	
Q	GENERAL MILITARY DUTIES	90.91	6.97	6.34	87.04	5
C	INSPECTING AND EVALUATING	81.82	3.48	2.85	89.89	
D	TRAINING	63.64	7.12	4.53	94.42	
N	SECURITY FUNCTIONS	54.54	2.16	1.18	95.60	
F	SUPPLY DUTIES	54.54	5.96	3.25	98.84	
K	MAINTENANCE SUPPORT/SERVICING	18.18	1.78	0.32	99.17	10
L	USE/OPERATE MACHINES AND OTHER EQUIPMENT/DEVICES/TOOLS	18.18	1.18	0.21	99.38	
U	OCEANOGRAPHY AND CLIMATOLOGY	9.09	1.29	0.12	99.50	
R	CODING AND PLOTTING	9.09	1.18	0.10	99.60	
G	CONSTRUCTING AND MANUFACTURING	9.09	1.71	0.15	99.75	
V	COMPUTER PROGRAMMING AND PERIPHERAL EQUIPMENT OPERATION	9.09	0.56	0.05	99.80	15
T	METEOROLOGY	9.09	0.82	0.07	99.87	

JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

TASK JOB DESCRIPTION——CASES= 727——TASKS= 483——DUTIES=19——MEMBERS= 11
GROUP 10 PAYGRADE E-9
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 618 THROUGH 669——FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
V008/EQ/ 9/ :INCUMBENT PAYGRADE

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
ORDERED BY..PERCENT OF MEMBERS PERFORMING.....

D-TSK	TASK TITLE	✓ ****	%	%	%	N
E 72	DRAFT CORRESPONDENCE	100.00	3.18	3.18	3.18	
A 11	APPROVE/DISAPPROVE SPECIAL REQUESTS	90.91	2.24	2.04	5.22	
B 20	ATTEND ADVISORY BOARD MEETINGS	81.82	2.14	1.75	6.96	
E 30	PROOFREAD REPORTS/CORRESPONDENCE	81.82	3.49	2.85	9.82	
P 23	MAKE TROUBLE CALLS	81.82	2.60	2.13	11.94	5
B 28	MAKE ARRANGEMENTS FOR CEREMONIES/INSPECTIONS	81.82	3.73	3.05	14.99	
A 20	PREPARE LOCAL DIRECTIVES	81.82	1.58	1.29	16.28	
E 28	MAINTAIN BULLETIN BOARDS	72.72	1.70	1.23	17.52	
E 31	PREPARE/MAINTAIN WATCH QUARTER AND STATION BILL	72.72	2.32	1.69	19.20	
A 16	CONDUCT REPORTING ABOARD INTERVIEWS	72.72	2.85	2.08	21.28	10
B 30	PREPARE WATCH BILLS	72.72	2.10	1.52	22.81	
B 27	PREPARE ENLISTED PERFORMANCE EVALUATIONS	72.72	2.22	1.62	24.42	
E 35	MAINTAIN ORGANIZATION CHARTS	72.72	2.00	1.45	25.88	
A 13	NOMINATE PERSONNEL FOR SPECIAL RECOGNITION	72.72	2.01	1.46	27.34	
A 14	ASSIGN COLLATERAL DUTIES	72.72	2.14	1.56	28.89	15
E 76	FILE CORRESPONDENCE	72.72	3.11	2.26	31.16	
B 17	COORDINATE ASSIGNMENTS WITH DETAILER	63.64	2.14	1.36	32.51	
B 18	PARTICIPATE ON INTERVIEW BOARDS	63.64	1.72	1.10	33.61	
B 21	ATTEND RECREATION AND WELFARE COMMITTEE MEETINGS	63.64	2.62	1.67	35.28	
A 17	SUPERVISE CIVILIAN PERSONNEL	63.64	2.14	1.36	36.64	20
B 31	INITIATE WORK REQUESTS	63.64	2.12	1.35	37.99	
E 69	MAINTAIN DIRECTIVES	63.64	3.85	2.45	40.44	
O 3	SUPERVISE TRAINING PROGRAMS	63.64	2.33	1.48	41.92	
O 7	STAND PERSONNEL INSPECTIONS	63.64	1.97	1.25	43.17	
A 24	ASSIGN MILITARY DUTIES	63.64	2.50	1.59	44.76	25
O 10	ESCORT INSPECTING PARTIES	63.64	2.32	1.47	46.23	
A 18	APPROVE WATCH BILLS	54.54	1.93	1.05	47.28	
E 42	READ DAILY MESSAGE TRAFFIC	54.54	3.30	1.80	49.08	
B 29	MAINTAIN LEAVE SCHEDULES	54.54	1.96	1.07	50.15	
E 67	REQUEST REQUIRED PUBLICATIONS	54.54	2.30	1.26	51.41	30
E 61	MAINTAIN TICKLER FILES	54.54	2.37	1.29	52.70	
B 11	SCHEDULE PERSONNEL FOR TRAINING	54.54	2.36	1.28	53.98	

+thru 9.09

JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

DUTY JOB DESCRIPTION———CASES= 727———TASKS= 483———DUTIES=19———MEMBERS= 11
GROUP 10 PAYGRADE E-9
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 418 THROUGH 669———FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
V008/EQ/ 9/ :INCUMBENT PAYGRADE

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
ORDERED BY.....AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
PERCENT OF MEMBERS PERFORMING.....

D-TSK	DUTY TITLE	%	%	% ****	%	N
E	ADMINISTRATIVE DUTIES	100.00	37.91	37.91	37.91	
B	ORGANIZING, PLANNING AND SCHEDULING	100.00	18.58	18.58	56.50	
A	DIRECTING AND IMPLEMENTING	90.91	19.73	17.94	74.43	
O	GENERAL MILITARY DUTIES	90.91	6.97	6.34	80.77	
P	MISCELLANEOUS	90.91	6.90	6.27	87.04	5
D	TRAINING	63.64	7.12	4.53	91.56	
F	SUPPLY DUTIES	54.54	5.96	3.25	94.81	
C	INSPECTING AND EVALUATING	81.82	3.48	2.85	97.66	
N	SECURITY FUNCTIONS	54.54	2.16	1.18	98.84	
K	MAINTENANCE SUPPORT/SERVICING	18.18	1.78	0.32	99.17	10
L	USE/OPERATE MACHINES AND OTHER EQUIPMENT/DEVICES/TOOLS	18.18	1.18	0.21	99.38	
G	CONSTRUCTING AND MANUFACTURING	9.09	1.71	0.15	99.53	
U	OCEANOGRAPHY AND CLIMATOLOGY	9.09	1.29	0.12	99.65	
R	CODING AND PLOTTING	9.09	1.18	0.10	99.75	
I	METEOROLOGY	9.09	0.82	0.07	99.82	15
V	COMPUTER PROGRAMMING AND PERIPHERAL EQUIPMENT OPERATION	9.09	0.56	0.05	99.87	

JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

TASK JOB DESCRIPTION-----CASES= 727-----TASKS= 483-----DUTIES=19-----MEMBERS= 11
GROUP 10 PAYGRADE E-9
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 618 THROUGH 669-----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
V008/EQ/ 9/ :INCUMBENT PAYGRADE

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
ORDERED BY.....AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
PERCENT OF MEMBERS PERFORMING.....

D-TSK	TASK TITLE	%	%	% ****	%	N
E 72	DRAFT CORRESPONDENCE	100.00	3.18	3.18	3.18	
B 28	MAKE ARRANGEMENTS FOR CEREMONIES/INSPECTIONS	81.82	3.73	3.05	6.23	
E 38	PROOFREAD REPORTS/CORRESPONDENCE	81.82	3.49	2.85	9.08	
E 69	MAINTAIN DIRECTIVES	63.64	3.85	2.45	11.53	
E 7	FILE CORRESPONDENCE	72.72	3.11	2.26	13.79	5
P 23	MAKE TROUBLE CALLS	81.82	2.60	2.13	15.92	
D 9	PERFORM AS MEMBER OF A AD/MAT INSPECTION TEAM	27.27	7.68	2.09	18.01	
A 16	CONDUCT REPORTING ABOARD INTERVIEWS	72.72	2.86	2.08	20.09	
A 11	APPROVE/DISAPPROVE SPECIAL REQUESTS	90.91	2.24	2.04	22.13	
E 42	READ DAILY MESSAGE TRAFFIC	54.54	3.30	1.80	23.92	10
B 20	ATTEND ADVISORY BOARD MEETINGS	81.82	2.14	1.75	25.67	
E 31	PREPARE/MAINTAIN WATCH QUARTER AND STATION BILL	72.72	2.32	1.69	27.36	
E 29	PREPARE SITUATION REPORTS	27.27	6.13	1.67	29.03	
B 21	ATTEND RECREATION AND WELFARE COMMITTEE MEETINGS	63.64	2.62	1.67	30.70	
B 27	PREPARE ENLISTED PERFORMANCE EVALUATIONS	72.72	2.22	1.62	32.32	15
A 24	ASSIGN MILITARY DUTIES	63.64	2.50	1.59	33.90	
A 14	ASSIGN COLLATERAL DUTIES	72.72	2.14	1.56	35.46	
B 30	PREPARE WATCH BILLS	72.72	2.10	1.52	36.98	
D 3	SUPERVISE TRAINING PROGRAMS	63.64	2.33	1.48	38.46	
D 10	ESCORT INSPECTING PARTIES	63.64	2.32	1.47	39.94	20
A 13	NOMINATE PERSONNEL FOR SPECIAL RECOGNITION	72.72	2.01	1.46	41.40	
E 35	MAINTAIN ORGANIZATION CHARTS	72.72	2.00	1.45	42.85	
A 17	SUPERVISE CIVILIAN PERSONNEL	63.64	2.14	1.36	44.21	
B 17	COORDINATE ASSIGNMENTS WITH DETAILER	63.64	2.14	1.36	45.57	
B 31	INITIATE WORK REQUESTS	63.64	2.12	1.35	46.92	25
A 25	CONDUCT ZONE INSPECTIONS	54.54	2.45	1.33	48.25	
E 61	MAINTAIN TICKLER FILES	54.54	2.37	1.29	49.54	
A 20	PREPARE LOCAL DIRECTIVES	81.82	1.58	1.29	50.84	
B 11	SCHEDULE PERSONNEL FOR TRAINING	54.54	2.36	1.28	52.12	
E 67	REQUEST REQUIRED PUBLICATIONS	54.54	2.30	1.26	53.38	30
D 7	STAND PERSONNEL INSPECTIONS	63.64	1.97	1.25	54.63	
E 30	PREPARE RECURRING REPORTS	45.45	2.72	1.24	55.86	

thru 0.44

JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

DUTY JOB DESCRIPTION----CASES= 727----TASKS= 483----DUTIES=19----MEMBERS= 11
GROUP 10 PAYGRADE E-9
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 618 THROUGH 669----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
V008/EQ/ 9/ :INCUMBENT PAYGRADE

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
PERCENT OF MEMBERS PERFORMING.....

ORDERED BY DUTY IDENTIFIERS.

✓ D-TSK ****	DUTY TITLE	%	%	%	%	N
A	DIRECTING AND IMPLEMENTING	90.91	19.73	17.94	17.94	
B	ORGANIZING, PLANNING AND SCHEDULING	100.00	18.58	18.58	36.52	
C	INSPECTING AND EVALUATING	81.82	3.48	2.85	39.37	
D	TRAINING	63.64	7.12	4.53	43.90	
E	ADMINISTRATIVE DUTIES	100.00	37.91	37.91	81.81	5
F	SUPPLY DUTIES	54.54	5.96	3.25	85.06	
G	CONSTRUCTING AND MANUFACTURING	9.09	1.71	0.15	85.21	
K	MAINTENANCE SUPPORT/SERVICING	18.18	1.78	0.32	85.54	
L	USE/OPERATE MACHINES AND OTHER EQUIPMENT/DEVICES/TOOLS	18.18	1.18	0.21	85.75	
N	SECURITY FUNCTIONS	54.54	2.16	1.18	86.93	10
O	GENERAL MILITARY DUTIES	90.91	6.97	6.34	93.26	
P	MISCELLANEOUS	90.91	6.90	6.27	99.53	
R	CODING AND PLOTTING	9.09	1.16	0.10	99.64	
T	METEOROLOGY	9.09	0.82	0.07	99.71	
U	OCEANOGRAPHY AND CLIMATOLOGY	9.09	1.29	0.12	99.82	15
V	COMPUTER PROGRAMMING AND PERIPHERAL EQUIPMENT OPERATION	9.09	0.56	0.05	99.87	

JOB DESCRIPTION FOR GROUP 10 PERSONNEL BY PAYGRADE

TASK JOB DESCRIPTION-----CASES= 727-----TASKS= 483-----DUTIES=19-----MEMBERS= 11
GROUP 10 PAYGRADE E-9
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLE VALUES, WITHIN HIERARCHY
POSITIONS 618 THROUGH 669----FORMED AT STAGE 10 OF GROUPING ON TASK SIMILARITY.
V008/EQ/ 9/ :INCUMBENT PAYGRADE

ORDERED BY TASK IDENTIFIERS.

Y	D-TSK ****	TASK TITLE	COUNT OF DUTIES OR TASKS LISTED %	CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS %	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS %	AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING %	PERCENT OF MEMBERS PERFORMING N
	A	7ASSIGN PERSONNEL FOR DEPLOYMENT	27.27	2.05	0.56	0.56	
	A	8PREPARE JOB ORDERS FOR CIVILIAN PAY	18.18	1.79	0.32	0.38	
	A	9CHECK CIVILIAN PAYROLLS FOR ACCURACY	27.27	1.56	0.42	1.31	
	A	10COORDINATE TUITION AID PROGRAM	36.36	1.33	0.48	1.79	
	A	11APPROVE/DISAPPROVE SPECIAL REQUESTS	90.91	2.24	2.04	3.83	5
	A	12CONDUCT PHYSICAL FITNESS PROGRAMS	27.27	2.53	0.69	4.52	
	A	13NOMINATE PERSONNEL FOR SPECIAL RECOGNITION	72.72	2.01	1.46	5.98	
	A	14ASSIGN COLLATERAL DUTIES	72.72	2.14	1.56	7.53	
	A	15PARTICIPATE ON JOB QUALIFICATION BOARDS	18.18	1.30	0.24	7.77	
	A	16CONDUCT REPORTING ABOARD INTERVIEWS	72.72	2.86	2.08	9.85	10
	A	17SUPERVISE CIVILIAN PERSONNEL	63.64	2.14	1.36	11.21	
	A	18APPROVE WATCH BILLS	54.54	1.93	1.05	12.26	
	A	20PREPARE LOCAL DIRECTIVES	81.82	1.58	1.29	13.56	
	A	21NOTIFY ACTIVITIES OF BUDGET AUTHORIZATIONS	18.18	2.08	0.38	13.93	
	A	22CONTROL OPERATING EXPENSES	36.36	1.86	0.68	14.61	15
	A	23PREPARE ACCOUNTING BUDGETS	18.18	2.08	0.38	14.98	
	A	24ASSIGN MILITARY DUTIES	63.64	2.50	1.59	16.57	
	A	25CONDUCT ZONE INSPECTIONS	54.54	2.45	1.33	17.90	
	3	3CHECK CHARTS FOR COMPLETENESS	9.09	0.64	0.06	17.96	
	B	11SCHEDULE PERSONNEL FOR TRAINING	54.54	2.36	1.28	19.24	20
	B	17COORDINATE ASSIGNMENTS WITH DETAILER	63.64	2.14	1.36	20.60	
	B	18PARTICIPATE ON INTERVIEW BOARDS	63.64	1.72	1.10	21.70	
	B	19ATTEND FLIGHT AUDIT BOARD	9.09	2.59	0.23	21.93	
	B	20ATTEND ADVISORY BOARD MEETINGS	81.82	2.14	1.75	23.68	
	B	21ATTEND RECREATION AND WELFARE COMMITTEE MEETINGS	63.64	2.62	1.67	25.34	25
	B	22ATTEND MINORITY AFFAIRS COMMITTEE MEETINGS	18.18	2.10	0.38	25.72	
	B	23ATTEND DISASTER CONTROL MEETINGS	18.18	1.62	0.29	26.02	
	B	24MAINTAIN LIAISON WITH OTHER WEATHER AGENCIES	36.36	1.52	0.55	26.57	
	B	25MAINTAIN LIAISON WITH CIVILIAN CONTRACTORS	27.27	1.27	0.34	26.91	
	B	26ACT AS LIAISON FOR PROJECT TRANSITION	45.45	1.80	0.82	27.73	30
	B	27PREPARE ENLISTED PERFORMANCE EVALUATIONS	72.72	2.22	1.62	29.34	
	B	29MAKE ARRANGEMENTS FOR CEREMONIES/INSPECTIONS	81.82	3.73	3.05	32.39	

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COMPARISON OF GROUPS BY INDIVIDUAL TASK AGALL771

DUTY SUMMARY OF PERCENT OF MEMBERS PERFORMING EACH TASK.
AVERAGE PERCENT MEMBER IS INCLUDED IN THE FOLLOWING GROUPS
AGSPCE2 THRU AGSPCE9
SEVENTH DIGIT SPECIFICIES THE PAYGRADE OF THE GROUP

THE FOLLOWING GROUPS ARE INCLUDED IN THIS REPORT:

AGSPCE2	PEOPLE IN PAYGRADE E-2	,MEMBERS= 3.
AGSPCE3	PEOPLE IN PAYGRADE E-3	,MEMBERS= 74.
AGSPCE4	PEOPLE IN PAYGRADE E-4	,MEMBERS= 140.
AGSPCE5	PEOPLE IN PAYGRADE E-5	,MEMBERS= 190.
AGSPCE6	PEOPLE IN PAYGRADE E-6	,MEMBERS= 170.
AGSPCE7	PEOPLE IN PAYGRADE E-7	,MEMBERS= 113.
AGSPCE8	PEOPLE IN PAYGRADE E-8	,MEMBERS= 26.
AGSPCE9	PEOPLE IN PAYGRADE E-9	,MEMBERS= 11.

DIV/ TASK	AGSPCE2	AGSPCE3	AGSPCE4	AGSPCE5	AGSPCE6	AGSPCE7	AGSPCE8	AGSPCE9
R	100.00	90.54	92.14	87.37	89.41	89.38	76.92	9.09
L	100.00	87.84	93.57	95.79	90.00	80.53	65.38	18.18
U	33.33	44.59	42.86	56.95	62.94	77.88	61.54	9.09
F	66.67	94.59	97.14	98.42	98.82	100.00	100.00	100.00
Q	100.00	74.32	78.57	78.42	85.88	86.73	88.46	0.0
C	33.33	75.68	76.43	77.37	81.18	63.19	80.77	81.82
K	66.67	85.14	92.14	92.11	81.18	66.37	46.15	18.18
J	0.0	40.54	45.71	43.68	45.30	38.94	30.77	0.0
B	33.33	77.03	83.57	94.74	95.88	93.23	100.00	100.00
G	0.0	12.16	8.57	7.89	12.59	8.85	3.85	9.09
V	0.0	22.97	18.57	32.63	18.24	9.73	15.38	9.09
P	100.00	97.30	97.86	96.84	95.88	80.53	92.31	90.91
A	0.0	16.22	21.43	51.05	70.00	89.38	100.00	90.91
D	33.33	43.24	53.57	66.32	80.59	66.50	88.46	63.64
S	66.67	83.78	76.43	88.42	67.06	71.68	53.85	0.0
H	66.67	59.46	46.43	46.84	41.76	50.44	38.46	54.55
F	66.67	63.51	63.57	63.16	48.82	52.21	76.92	54.55
T	33.33	48.65	47.86	58.42	77.65	85.84	76.92	9.09
D	100.00	71.62	67.86	68.42	70.59	78.76	88.46	90.91

Attachment AF2

COMPARISON OF GROUPS BY INDIVIDUAL TASK AGALL771

DAILY SUMMARY OF PERCENT OF MEMBERS PERFORMING EACH TASK.
AVERAGE PERCENT MEMBER IS INCLUDED IN THE FOLLOWING GROUPS
AGSPCE2 THRU AGSPCE9

CTY/ TASK		AGSPCE2	AGSPCE3	AGSPCE4	AGSPCE5	AGSPCE6	AGSPCE7	AGSPCE8	AGSPCE9
B	22	0.0	1.35	2.14	0.53	2.35	3.54	7.69	18.18
V	20	0.0	1.35	2.86	6.84	5.88	0.88	0.0	0.0
B	23	0.0	1.35	4.29	4.21	5.88	8.85	7.69	18.18
V	21	0.0	0.0	1.43	5.79	5.29	3.54	3.85	0.0
B	24	0.0	1.35	7.14	7.89	22.35	38.05	53.85	36.36
V	22	0.0	0.0	0.71	5.79	3.53	0.88	3.85	0.0
B	25	0.0	1.35	2.14	3.16	7.06	12.39	11.54	27.27
→ A	6	0.0	0.0	2.86	7.37	4.12	0.89	3.85	0.0
B	26	0.0	0.0	0.71	0.0	1.76	8.85	19.23	45.45
V	23	0.0	0.0	0.0	2.63	2.35	0.88	3.85	0.0
C	9	0.0	1.35	2.14	8.95	6.47	22.12	15.38	45.45
V	24	0.0	0.0	1.43	4.74	2.94	0.88	3.85	0.0
E	27	0.0	4.05	5.71	10.53	6.47	17.70	15.38	18.18
V	25	0.0	1.35	3.57	11.05	5.29	2.65	0.0	0.0
E	28	0.0	20.27	18.57	20.00	21.76	39.82	53.85	72.73
→ A	7	0.0	0.0	0.0	1.05	4.71	9.73	11.54	27.27
E	37	0.0	0.0	0.71	1.58	5.29	9.73	15.38	18.18
E	29	0.0	0.0	2.14	3.16	8.24	14.16	11.54	27.27
E	38	0.0	2.70	12.14	16.84	30.59	58.41	88.46	81.82
E	30	0.0	0.0	5.00	4.74	17.06	43.36	53.85	45.45
→ A	15	0.0	0.0	0.0	0.53	0.59	6.19	15.38	18.18
E	31	0.0	1.35	6.43	7.37	14.71	39.82	76.92	72.73
→ A	16	0.0	1.35	0.71	4.74	7.65	30.09	50.00	72.73
E	32	0.0	1.35	6.43	20.00	57.65	76.11	80.77	45.45
→ A	17	0.0	0.0	0.71	7.37	11.18	23.89	34.62	63.64
E	33	0.0	1.35	8.57	11.58	33.53	47.79	73.08	36.36
B	30	0.0	2.70	4.29	11.05	22.94	40.71	69.23	72.73
→ A	8	0.0	0.0	1.43	1.05	2.35	9.73	0.0	18.18
→ A	18	0.0	1.35	1.43	1.58	5.88	32.74	46.15	54.55
→ A	9	0.0	0.0	0.71	1.05	1.76	8.85	7.69	27.27
E	39	0.0	4.05	9.29	19.47	20.59	25.66	34.62	0.0
→ A	10	0.0	1.35	0.0	0.0	1.18	7.08	3.85	36.36
B	31	0.0	0.0	7.86	14.21	16.47	44.25	76.92	63.64
→ A	11	0.0	0.0	4.29	12.11	41.76	64.60	92.31	90.91
P	23	0.0	36.49	40.00	42.63	44.71	53.98	65.38	81.82

TASK SUMMARY OF PERCENT OF MEMBERS PERFORMING EACH TASK. (Alpha-Numeric Order)
AVERAGE PERCENT MEMBER IS INCLUDED IN THE FOLLOWING GROUPS
AGSPCE2 THRU AGSPCE9
SEVENTH DIGIT SPECIFICIES THE PAYGRADE OF THE GROUP

THE FOLLOWING GROUPS ARE INCLUDED IN THIS REPORT:

AGSPCE2	PEOPLE IN PAYGRADE E-2	,MEMBERS= 3.
AGSPCE3	PEOPLE IN PAYGRADE E-3	,MEMBERS= 74.
AGSPCE4	PEOPLE IN PAYGRADE E-4	,MEMBERS= 140.
AGSPCE5	PEOPLE IN PAYGRADE E-5	,MEMBERS= 190.
AGSPCE6	PEOPLE IN PAYGRADE E-6	,MEMBERS= 170.
AGSPCE7	PEOPLE IN PAYGRADE E-7	,MEMBERS= 113.
AGSPCE8	PEOPLE IN PAYGRADE E-8	,MEMBERS= 26.
AGSPCE9	PEOPLE IN PAYGRADE E-9	,MEMBERS= 11.

DIV/ TASK	AGSPCE2	AGSPCE3	AGSPCE4	AGSPCE5	AGSPCE6	AGSPCE7	AGSPCE8	AGSPCE9
A 1	0.0	6.76	2.86	4.21	7.06	3.54	7.69	0.0
A 2	0.0	2.70	2.86	4.74	8.82	15.93	11.54	0.0
A 3	0.0	1.35	2.14	4.74	11.76	14.16	7.69	0.0
A 4	0.0	1.35	0.71	1.58	0.59	0.0	0.0	0.0
A 5	0.0	2.70	2.86	9.47	5.88	2.65	7.69	0.0
A 6	0.0	0.0	2.86	7.37	4.12	0.88	3.85	0.0
A 7	0.0	0.0	0.0	1.05	4.71	9.73	11.54	27.27
A 8	0.0	0.0	1.43	1.05	2.35	9.73	0.0	18.18
A 9	0.0	0.0	0.71	1.05	1.76	8.85	7.69	27.27
A 10	0.0	1.35	0.0	0.0	1.18	7.08	3.85	36.36
A 11	0.0	0.0	4.29	12.11	41.76	64.60	92.31	90.91
A 12	0.0	1.35	1.43	5.79	15.88	34.51	38.46	27.27
A 13	0.0	0.0	1.43	1.05	13.53	44.25	57.69	72.73
A 14	0.0	0.0	4.29	5.26	20.59	58.44	80.77	72.73
A 15	0.0	0.0	0.0	0.53	0.59	6.19	15.38	18.18
A 16	0.0	1.35	0.71	4.74	7.65	30.09	50.00	72.73
A 17	0.0	0.0	0.71	7.37	11.18	23.89	34.62	63.64
A 18	0.0	1.35	1.43	1.58	5.88	32.74	46.15	54.55
A 19	0.0	0.0	0.71	1.58	1.76	5.31	11.54	0.0
A 20	0.0	0.0	0.71	1.58	4.71	30.09	53.85	81.82
A 21	0.0	0.0	2.14	1.58	1.18	6.19	3.85	18.18
A 22	0.0	0.0	1.43	4.21	7.65	28.32	30.77	36.36
A 23	0.0	0.0	0.71	3.68	3.53	28.32	26.92	18.18
A 24	0.0	2.70	3.57	9.47	17.65	37.17	69.23	63.64
A 25	0.0	0.0	2.14	1.58	5.88	22.12	38.46	54.55

GROUP SUM OF E2 THRU E9 AG411771 DAPSUM01 PAGE

DUTY SUMMARY OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS OF GROUP PER TASK.
A GROUP SUM OF AGS BY PAY GRADE IN EACH TASK

THE FOLLOWING GROUPS ARE INCLUDED IN THIS REPORT:

AGSPCE3	,MEMBERS=	74.
AGSPCE4	,MEMBERS=	140.
AGSPCE5	,MEMBERS=	190.
AGSPCE6	,MEMBERS=	170.
AGSPCE7	,MEMBERS=	113.
AGSPCE8	,MEMBERS=	26.
AGSPCE9	,MEMBERS=	11.
AGWAVEA	,MEMBERS=	20.
AGTOTPP	,MEMBERS=	707.

DTY/ TASK	AGSPCE3	AGSPCE4	AGSPCE5	AGSPCE6	AGSPCE7	AGSPCE8	AGSPCE9	AGWAVEA	AGTOTPP
A	13.79	12.16	10.49	8.31	6.93	4.06	0.11	15.25	9.60
L	13.25	12.89	10.43	6.37	3.40	2.64	0.21	10.80	8.66
L	1.56	1.82	2.61	3.07	3.86	1.74	0.12	2.22	2.80
E	15.70	20.36	19.86	20.09	23.94	27.04	37.91	20.05	20.74
O	4.13	4.37	5.87	12.03	12.67	8.12	0.0	7.51	7.91
C	2.59	2.66	2.57	3.01	2.76	2.79	2.85	2.18	2.75
K	7.41	7.65	7.34	3.92	1.43	0.78	0.32	4.58	5.35
J	0.64	0.73	0.64	0.60	0.39	0.28	0.0	0.39	0.59
R	3.91	3.24	4.60	8.24	10.07	14.33	18.59	5.70	6.43
G	0.14	0.19	0.09	0.19	0.09	0.04	0.16	0.0	0.14
V	3.01	3.70	7.50	3.20	1.06	1.35	0.05	1.25	3.01
D	11.22	10.54	7.82	4.48	3.40	3.69	6.27	7.51	7.07
→ A	0.27	0.54	1.45	2.30	5.74	10.76	17.94	0.32	2.66
D	1.76	1.68	2.68	8.29	9.03	8.67	4.53	3.46	4.97
S	11.23	9.12	6.77	3.82	2.58	1.83	0.0	6.66	6.05
N	2.44	2.44	1.93	1.57	1.45	1.63	1.18	1.31	1.91
F	3.60	2.31	2.89	1.77	2.58	2.62	3.25	2.36	2.55
T	1.34	1.31	2.53	5.89	6.22	4.59	0.07	3.88	3.56
O	3.88	2.15	1.77	1.79	2.21	3.00	6.34	4.44	2.19

Attachment AFS

GROUP SUM OF E2 THRU E9 AGALL771 GRPSUM01

DUTY SUMMARY OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS OF GROUP PER TASK.
A GROUP SUM OF AGS BY PAY GRADE IN EACH TASK

DUTY

TASK	AGSPCE3	AGSPCE4	AGSPCE5	AGSPCE6	AGSPCE7	AGSPCE8	AGSPCE9	AGWAVEA	AGTOTPP
P 22	0.01	0.02	0.00	0.01	0.04	0.03	0.38	0.0	0.02
V 20	0.01	0.06	0.23	0.08	0.03	0.0	0.0	0.0	0.10
P 23	0.01	0.05	0.03	0.04	0.04	0.05	0.29	0.0	0.04
V 21	0.0	0.03	0.16	0.07	0.04	0.06	0.0	0.0	0.08
P 24	0.01	0.14	0.12	0.33	0.39	0.73	0.55	0.03	0.24
V 22	0.0	0.00	0.16	0.06	0.03	0.06	0.0	0.0	0.07
P 25	0.01	0.03	0.05	0.06	0.10	0.08	0.35	0.04	0.06
→ A 6	0.0	0.06	0.21	0.09	0.02	0.06	0.0	0.0	0.10
P 26	0.0	0.00	0.0	0.01	0.04	0.20	0.82	0.0	0.03
V 23	0.0	0.0	0.09	0.04	0.01	0.06	0.0	0.0	0.04
C 9	0.01	0.02	0.19	0.05	0.14	0.20	0.96	0.0	0.11
V 24	0.0	0.05	0.07	0.05	0.03	0.06	0.0	0.0	0.05
P 27	0.03	0.08	0.22	0.05	0.13	0.15	0.52	0.0	0.12
V 25	0.01	0.14	0.32	0.11	0.05	0.0	0.0	0.0	0.15
P 28	0.21	0.22	0.22	0.20	0.34	0.94	1.23	0.31	0.26
→ A 7	0.0	0.0	0.01	0.04	0.13	0.23	0.56	0.0	0.05
E 37	0.0	0.00	0.05	0.03	0.04	0.14	0.22	0.0	0.04
P 29	0.0	0.02	0.03	0.17	0.18	0.12	1.67	0.0	0.11
P 39	0.02	0.24	0.26	0.43	1.42	1.40	2.86	0.13	0.54
P 30	0.0	0.11	0.11	0.29	0.90	0.69	1.24	0.0	0.31
→ A 15	0.0	0.0	0.00	0.01	0.07	0.10	0.24	0.0	0.02
E 31	0.01	0.08	0.06	0.14	0.35	1.05	1.69	0.0	0.19
→ A 16	0.01	0.00	0.05	0.06	0.26	0.58	2.08	0.03	0.12
P 32	0.01	0.07	0.19	0.66	1.09	1.14	0.75	0.12	0.45
→ A 17	0.0	0.01	0.15	0.12	0.26	1.07	1.37	0.09	0.17
E 33	0.02	0.12	0.13	0.45	0.50	1.01	0.51	0.05	0.29
P 30	0.04	0.04	0.11	0.28	0.40	1.06	1.53	0.01	0.23
→ A 8	0.0	0.01	0.01	0.01	0.08	0.0	0.33	0.0	0.03
→ A 18	0.01	0.02	0.02	0.05	0.36	0.66	1.05	0.0	0.12
→ A 9	0.0	0.00	0.01	0.00	0.07	0.05	0.43	0.0	0.02
E 39	0.05	0.13	0.26	0.23	0.17	0.47	0.0	0.0	0.20
→ A 10	0.01	0.0	0.0	0.02	0.06	0.02	0.48	0.0	0.02
P 31	0.0	0.12	0.17	0.30	0.39	1.35	1.35	0.06	0.27
→ A 11	0.0	0.05	0.10	0.46	0.92	1.70	2.04	0.10	0.39
P 23	0.62	0.74	0.61	0.48	0.52	0.83	2.13	0.70	0.62

GROUP SUM OF E2 THRU E9 AGALL771

TASK SUMMARY OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS OF GROUP PER TASK. (Alpha-Numeric Order)
A GROUP SUM OF AGS BY PAY GRADE IN EACH TASK

THE FOLLOWING GROUPS ARE INCLUDED IN THIS REPORT:

AGSPCE3	,MEMBERS= 74.
AGSPCE4	,MEMBERS= 140.
AGSPCE5	,MEMBERS= 190.
AGSPCE6	,MEMBERS= 170.
AGSPCE7	,MEMBERS= 113.
AGSPCE8	,MEMBERS= 26.
AGSPCE9	,MEMBERS= 11.
AGWAVEA	,MEMBERS= 20.
AGTOTPP	,MEMBERS= 707.

DTY/ TASK	AGSPCE3	AGSPCE4	AGSPCE5	AGSPCE6	AGSPCE7	AGSPCE8	AGSPCE9	AGWAVEA	AGTOTPP
A 1	0.04	0.03	0.06	0.08	0.04	0.10	0.0	0.0	0.06
A 2	0.04	0.02	0.04	0.07	0.16	0.10	0.0	0.0	0.07
A 3	0.01	0.06	0.06	0.14	0.11	0.04	0.0	0.0	0.08
A 4	0.02	0.01	0.02	0.00	0.0	0.0	0.0	0.0	0.01
A 5	0.04	0.11	0.21	0.10	0.04	0.43	0.0	0.0	0.13
A 6	0.0	0.06	0.21	0.09	0.02	0.06	0.0	0.0	0.10
A 7	0.0	0.0	0.01	0.04	0.13	0.23	0.56	0.0	0.05
A 8	0.0	0.01	0.01	0.01	0.04	0.0	0.33	0.0	0.03
A 9	0.0	0.00	0.01	0.00	0.07	0.05	0.43	0.0	0.02
A 10	0.01	0.0	0.0	0.02	0.06	0.02	0.49	0.0	0.02
A 11	0.0	0.05	0.13	0.46	0.92	1.70	2.04	0.10	0.39
A 12	0.01	0.03	0.06	0.17	0.32	0.38	0.69	0.04	0.14
A 13	0.0	0.01	0.01	0.19	0.51	0.88	1.46	0.04	0.19
A 14	0.0	0.04	0.06	0.23	0.63	1.17	1.56	0.0	0.25
A 15	0.0	0.0	0.00	0.01	0.07	0.10	0.24	0.0	0.02
A 16	0.01	0.00	0.05	0.06	0.26	0.58	2.04	0.03	0.12
A 17	0.0	0.01	0.15	0.12	0.26	1.07	1.37	0.09	0.17
A 18	0.01	0.02	0.02	0.05	0.36	0.66	1.05	0.0	0.12
A 19	0.0	0.01	0.04	0.06	0.09	0.19	0.0	0.0	0.05
A 20	0.0	0.00	0.02	0.06	0.29	0.62	1.29	0.0	0.11
A 21	0.0	0.02	0.01	0.00	0.03	0.09	0.38	0.0	0.03
A 22	0.0	0.01	0.04	0.04	0.30	0.40	0.68	0.0	0.10
A 23	0.0	0.01	0.04	0.04	0.28	0.39	0.38	0.0	0.09
A 24	0.05	0.02	0.19	0.17	0.47	1.05	1.59	0.03	0.24
A 25	0.0	0.02	0.05	0.05	0.19	0.46	1.34	0.0	0.10

PAYGRADE E-2 AGALL 771 JOBDEC14 PAGE 1

JOB DESCRIPTIONS OF PAYGRADES E-2 THRU E-9 (Alpha-numeric sequence)

DUTY JOB DESCRIPTION-----CASES= 727-----TASKS= 483-----DUTIES=19-----MEMBERS= 3
PAYGRADE E-2
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLES:
V008/EQ/ 2/ :INCUMBENT PAYGRADE

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
PERCENT OF MEMBERS PERFORMING.....

ORDERED BY DUTY IDENTIFIERS.

D-TSK	DUTY TITLE	%	%	%	%	N
A	DIRECTING AND IMPLEMENTING					
B	ORGANIZING, PLANNING AND SCHEDULING	33.33	3.94	1.31	1.31	
C	INSPECTING AND EVALUATING	33.33	5.09	1.70	3.01	
D	TRAINING	33.33	1.02	0.34	3.34	
E	ADMINISTRATIVE DUTIES	66.66	18.92	12.62	15.96	
F	SUPPLY DUTIES	66.66	6.59	4.39	20.35	5
K	MAINTENANCE SUPPORT/SERVICING	66.66	3.46	2.30	22.66	
L	USE/OPERATE MACHINES AND OTHER EQUIPMENT/DEVICES/TOOLS	100.00	11.84	11.84	34.50	
N	SECURITY FUNCTIONS	66.66	2.22	1.48	35.98	
O	GENERAL MILITARY DUTIES	100.00	4.46	4.46	40.43	
P	MISCELLANEOUS	100.00	16.55	16.55	56.28	10
Q	ANALYSIS AND FORECASTING	100.00	7.46	7.46	64.44	
R	CODING AND PLOTTING	100.00	23.98	23.98	88.42	
S	OBSERVATION	66.66	15.46	10.30	98.72	
T	METEOROLOGY	33.33	2.12	0.70	99.43	
U	OCEANOGRAPHY AND CLIMATOLOGY	33.33	1.31	0.44	99.86	15

PAYGRADE E-2 AGALL771 JOBDEC14 PAGE

JOB DESCRIPTIONS OF PAYGRADES E-2 THRU E-9 (Alpha-numeric sequence)

TASK JOB DESCRIPTION-----CASES= 727-----TASKS= 483-----DUTIES=19-----MEMBERS= 3
PAYGRADE E-2
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLES:
V008/EQ/ 2/ :INCUMBENT PAYGRADE

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
PERCENT OF MEMBERS PERFORMING.....

ORDERED BY TASK IDENTIFIERS.

D-TSK	TASK TITLE	%	%	%	%	N
B 4	ORIENT MYSELF PRIOR TO ASSUMING WATCH	33.33	3.94	1.31	1.31	
C 1	CHECK FAX PRODUCTS FOR ACCURACY	33.33	1.52	0.51	1.82	
C 3	CHECK BAROMETERS FOR ACCURACY	33.33	1.52	0.51	2.33	
C 4	CHECK EQUIPMENT GEARS FOR EXCESSIVE WEAR	33.33	0.50	0.17	2.50	
C 5	VISUALLY INSPECT ALL PARTS OF EQUIPMENT	33.33	1.52	0.51	3.03	5
D 14	ATTEND TRAINING LECTURES	33.33	1.02	0.34	3.36	
E 1	HANG/POST TELETYPE PAPER	66.66	2.33	1.55	4.89	
E 2	FILE TELETYPE MESSAGES	66.66	2.33	1.55	6.44	
E 9	FILL OUT WATCH RELIEF SHEETS	33.33	1.31	0.44	6.88	
E 74	PREPARE PACKAGES FOR MAILING	33.33	1.52	0.51	7.39	10
E 84	PREPARE CHARTS FOR TRANSMISSION	33.33	2.54	0.85	8.24	
E 85	HANG/POST WEATHER CHARTS	66.66	2.33	1.55	9.79	
E 86	TEAR WEATHER CHARTS	33.33	3.94	1.31	11.10	
E 87	TIME STAMP CHARTS	66.66	3.24	2.16	13.26	
E 88	FILE MAPS AND CHARTS	66.66	2.99	1.99	15.25	15
E 90	DRAW MAPS ON DITTO MATS	33.33	2.04	0.68	15.93	
F 11	STOW/BREAK-OUT SUPPLIES	33.33	8.50	2.83	18.76	
F 16	PACKAGE MAPS AND CHARTS FOR STORAGE	66.66	2.33	1.56	20.32	
K 1	REPLACE TELETYPE TRANSMISSION TAPE	33.33	1.02	0.34	20.65	
K 5	MANUALLY PHASE FACSIMILE RECORDERS	66.66	1.14	0.78	21.43	20
K 10	WASH VEHICLES/EQUIPMENT	33.33	1.02	0.34	21.76	
K 12	CHANGE HELIX WIRES	33.33	1.02	0.34	22.10	
K 21	FILL RECORDER INK WELLS	33.33	1.02	0.34	22.44	
K 24	CLEAN INTERNAL/EXTERNAL COMPONENTS OF EQUIPMENT	33.33	0.50	0.17	22.60	
L 1	TEAR TELETYPE PAPER	66.66	1.93	1.28	23.88	25
L 2	REPLACE TELETYPE PAPER	33.33	2.04	0.68	24.56	
L 3	CLEAR JAMMED PAPER FROM TELETYPE	33.33	1.52	0.51	25.07	
L 6	MAKE OPERATIONAL CHECKS ON TIELINE	33.33	0.50	0.17	25.24	
L 8	TRACK SATELLITES	66.66	5.16	3.44	28.68	
L 9	TUNE FACSIMILE RECEIVERS	33.33	1.52	0.51	29.19	30
L 10	REPLACE FAX PAPER	33.33	2.54	0.85	30.04	
L 12	TIME CHECK WEATHER RECORDING CHARTS	66.66	2.99	1.99	32.03	
L 13	CHANGE PAPER IN WEATHER RECORDING EQUIPMENT	33.33	1.02	0.34	32.36	
L 14	ADJUST PEN ARMS ON WEATHER RECORDING EQUIPMENT	33.33	0.50	0.17	32.53	
L 16	PERFORM OPERATIONAL CHECKS ON METEOROLOGICAL EQUIPMENT	33.33	0.50	0.17	32.70	35
L 19	RECORD WEATHER ON AUTOMATIC ANSWERING MACHINE	66.66	2.58	1.72	34.42	
N 4	PREPARE CLASSIFIED MATERIAL FOR DESTRUCTION	33.33	0.50	0.17	34.59	
N 8	TRANSMIT ENCRYPTED WEATHER INFORMATION	33.33	3.94	1.31	35.90	
O 1	PARTICIPATE IN PHYSICAL FITNESS PROGRAMS	33.33	6.38	2.12	38.03	

(PAYGRADES E-3 THRU E-8 OMITTED)

PAYGRADE E-9 AGALL771 JOBDEC14 PAGE

JOB DESCRIPTIONS OF PAYGRADES E-2 THRU E-9

DUTY JOB DESCRIPTION-----CASES= 727-----TASKS= 483-----DUTIES=19-----MEMBERS= 11
PAYGRADE E-9
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLES:
V008/EQ/ 9/ INCUMBENT PAYGRADE

		COUNT OF DUTIES OR TASKS LISTED	CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS	AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING	PERCENT OF MEMBERS PERFORMING	
ORDERED BY DUTY IDENTIFIERS.							
D-TSK	DUTY TITLE	%	%	%	%	N	
A	DIRECTING AND IMPLEMENTING	90.91	19.73	17.94	17.94		
B	ORGANIZING, PLANNING AND SCHEDULING	100.00	18.58	18.58	36.52		
C	INSPECTING AND EVALUATING	81.82	3.48	2.85	39.37		
D	TRAINING	63.64	7.12	4.53	43.90		
E	ADMINISTRATIVE DUTIES	100.00	37.81	37.81	81.71	5	
F	SUPPLY DUTIES	54.54	5.54	3.25	99.69		
G	CONSTRUCTING AND MANUFACTURING	9.09	1.71	0.15	85.71		
K	MAINTENANCE SUPPORT/SERVICING	18.18	1.78	0.32	85.54		
L	USE/OPERATE MACHINES AND OTHER EQUIPMENT/DEVICES/TOOLS	18.18	1.18	0.21	85.75		
N	SECURITY FUNCTIONS	54.54	2.16	1.19	88.43	10	
O	GENERAL MILITARY DUTIES	90.91	6.97	6.34	93.26		
P	MISCELLANEOUS	90.91	6.90	6.27	99.53		
R	CODING AND PLOTTING	9.09	1.18	0.10	99.64		
T	METEOROLOGY	9.09	0.82	0.07	99.71		
U	OCEANOGRAPHY AND CLIMATOLOGY	9.09	1.29	0.12	99.82	15	
V	COMPUTER PROGRAMMING AND PERIPHERAL EQUIPMENT OPERATION	9.09	0.56	0.05	99.87		

PAYGRADE E-9 AGALL771 JOBDEC14 PAGE

JOB DESCRIPTIONS OF PAYGRADES E-2 THRU E-9

TASK JOB DESCRIPTION-----CASES= 727-----TASKS= 483-----DUTIES=19-----MEMBERS= 11
PAYGRADE E-9
SELECTED FROM THE FOLLOWING COMPUTED/HISTORY VARIABLES:
V008/EQ/ 9/ :INCUMBENT PAYGRADE

COUNT OF DUTIES OR TASKS LISTED.....
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS..
AVERAGE PERCENT TIME SPENT BY ALL MEMBERS.....
AVERAGE PERCENT TIME SPENT BY MEMBERS PERFORMING.
PERCENT OF MEMBERS PERFORMING.....

ORDERED BY TASK IDENTIFIERS.

D-TSK	TASK TITLE	%	%	%	%	N
A	7ASSIGN PERSONNEL FOR DEPLOYMENT	27.27	2.05	0.56	0.56	
A	8PREPARE JOB ORDERS FOR CIVILIAN PAY	18.18	1.79	0.32	0.88	
A	9CHECK CIVILIAN PAYROLLS FOR ACCURACY	27.27	1.56	0.42	1.31	
A	10COORDINATE TUITION AID PROGRAM	36.36	1.33	0.48	1.79	
A	11APPROVE/DISAPPROVE SPECIAL REQUESTS	90.91	2.24	2.04	3.83	5
A	12CONDUCT PHYSICAL FITNESS PROGRAMS	27.27	2.53	0.69	4.52	
A	13NOMINATE PERSONNEL FOR SPECIAL RECOGNITION	72.72	2.01	1.46	5.98	
A	14ASSIGN COLLATERAL DUTIES	72.72	2.14	1.56	7.53	
A	15PARTICIPATE ON JOB QUALIFICATION BOARDS	18.18	1.30	0.24	7.77	
A	16CONDUCT REPORTING ABOARD INTERVIEWS	72.72	2.86	2.08	9.85	10
A	17SUPERVISE CIVILIAN PERSONNEL	63.64	2.14	1.36	11.21	
A	19APPROVE WATCH BILLS	54.54	1.93	1.05	12.26	
A	20PREPARE LOCAL DIRECTIVES	81.82	1.58	1.29	13.56	
A	21NOTIFY ACTIVITIES OF BUDGET AUTHORIZATIONS	18.18	2.08	0.38	13.93	
A	22CONTROL OPERATING EXPENSES	36.36	1.86	0.68	14.61	15
A	23PREPARE ACCOUNTING BUDGETS	18.18	2.08	0.38	14.98	
A	24ASSIGN MILITARY DUTIES	63.64	2.50	1.59	16.57	
A	25CONDUCT ZONE INSPECTIONS	54.54	2.45	1.33	17.90	
B	3CHECK CHARTS FOR COMPLETENESS	9.09	0.64	0.06	17.96	
B	11SCHEDULE PERSONNEL FOR TRAINING	54.54	2.36	1.28	19.24	20
B	17COORDINATE ASSIGNMENTS WITH DETAILER	63.64	2.14	1.36	20.60	
B	18PARTICIPATE ON INTERVIEW BOARDS	63.64	1.72	1.10	21.70	
B	19ATTEND FLIGHT AUDIT BOARD	9.09	2.59	0.23	21.93	
B	20ATTEND ADVISORY BOARD MEETINGS	81.82	2.14	1.75	23.68	
B	21ATTEND RECREATION AND WELFARE COMMITTEE MEETINGS	63.64	2.62	1.67	25.34	25
B	22ATTEND MINORITY AFFAIRS COMMITTEE MEETINGS	18.18	2.10	0.38	25.72	
B	23ATTEND DISASTER CONTROL MEETINGS	18.18	1.62	0.29	26.02	
B	24MAINTAIN LIAISON WITH OTHER WEATHER AGENCIES	36.36	1.52	0.55	26.57	
B	25MAINTAIN LIAISON WITH CIVILIAN CONTRACTORS	27.27	1.27	0.34	26.91	
B	26ACT AS LIAISON FOR PROJECT TRANSITION	45.45	1.80	0.82	27.73	30
B	27PREPARE ENLISTED PERFORMANCE EVALUATIONS	72.72	2.22	1.62	29.34	
B	28MAKE ARRANGEMENTS FOR CEREMONIES/INSPECTIONS	81.82	3.73	3.05	32.39	
B	29MAINTAIN LEAVE SCHEDULES	54.54	1.96	1.07	33.46	
B	30PREPARE WATCH BILLS	72.72	2.10	1.52	34.99	
B	31INITIATE WORK REQUESTS	63.64	2.12	1.35	36.34	35
B	33GIVE WEATHER LECTURES AT LOCAL SCHOOLS	9.09	1.18	0.10	36.44	
C	2PERFORM PRE-OPERATIONAL INSPECTION ON VEHICLES/EQUIPMENT	18.18	1.18	0.21	36.66	
C	5VISUALLY INSPECT ALL PARTS OF EQUIPMENT	9.09	1.94	0.18	36.83	
C	7PREFLIGHT AIRCRAFT METEOROLOGICAL GEAR	9.09	0.82	0.07	36.90	

AG EQUIPMENT VARSUM BY PAYGRADE AGALL771 AGEQUIPP PAGE

THE FOLLOWING GROUPS ARE INCLUDED IN THIS REPORT

GROUP IDENTITY = AG---E3	AG PAYGRADE E3	CONTAINING	74 MEMBERS.
GROUP IDENTITY = AG---E4	AG PAYGRADE E4	CONTAINING	140 MEMBERS.
GROUP IDENTITY = AG---E5	AG PAYGRADE E5	CONTAINING	190 MEMBERS.
GROUP IDENTITY = AG---E6	AG PAYGRADE E6	CONTAINING	170 MEMBERS.
GROUP IDENTITY = AG---E7	AG PAYGRADE E7	CONTAINING	113 MEMBERS.
GROUP IDENTITY = AG---E8	AG PAYGRADE E8	CONTAINING	26 MEMBERS.
GROUP IDENTITY = AG---E9	AG PAYGRADE E9	CONTAINING	11 MEMBERS.

VARIABLE DATA ON: V130 = SEMI AUTOMATIC WEATHER STATION GMQ 14 SERIES

....INTERVAL....	AG---E3	AG---E4	AG---E5	AG---E6	AG---E7	AG---E8	AG---E9
1	46	66	88	83	56	13	0
2	1	0	1	1	0	0	0
3	0	6	9	6	7	3	0
TOTAL COUNTED ABOVE	47*	72*	98*	90*	63*	16*	0*
OTHER	27	68	92	80	50	10	11

VARIABLE DATA ON: V132 = WIND MEASURING SET AN/GMQ 5

....INTERVAL....	AG---E3	AG---E4	AG---E5	AG---E6	AG---E7	AG---E8	AG---E9
1	42	77	103	92	60	12	0
2	0	0	0	1	0	0	0
3	1	5	10	5	12	4	0
TOTAL COUNTED ABOVE	43*	82*	113*	98*	72*	16*	0*
OTHER	31	58	77	72	41	10	11

VARIABLE DATA ON: V134 = TRANSMISSOMETER AN/GMQ 10

....INTERVAL....	AG---E3	AG---E4	AG---E5	AG---E6	AG---E7	AG---E8	AG---E9
1	33	46	63	51	47	8	0
2	0	0	0	1	0	0	0
3	0	1	5	3	3	3	0
TOTAL COUNTED ABOVE	33*	47*	68*	55*	50*	11*	0*
OTHER	41	93	122	115	63	15	11

VARIABLE DATA ON: V136 = CLOUD HEIGHT SET AN/GMQ 13

....INTERVAL....	AG---E3	AG---E4	AG---E5	AG---E6	AG---E7	AG---E8	AG---E9
1	36	55	69	64	51	8	0
2	0	0	0	1	0	0	0
3	0	2	6	2	3	3	0
TOTAL COUNTED ABOVE	36*	57*	75*	67*	54*	11*	0*
OTHER	38	83	115	103	59	15	11

AG EQUIPMENT VERSUS BY PAYGRADE

VARIABLE DATA ON: V210 = TYPEWRITER

....INTERVAL....	AG---E3	AG---E4	AG---E5	AG---E6	AG---E7	AG---E8	AG---E9
1	63	112	163	137	93	24	9
2	0	0	0	0	0	0	0
3	1	8	8	14	8	0	1
TOTAL COUNTED ABOVE	64*	120*	171*	151*	101*	24*	10*
OTHER	10	20	19	19	12	2	1

VARIABLE DATA ON: V212 = COPYING MACHINE 3M, BEROX, ETC.

....INTERVAL....	AG---E3	AG---E4	AG---E5	AG---E6	AG---E7	AG---E8	AG---E9
1	47	97	115	119	64	19	8
2	0	0	1	2	0	0	0
3	2	2	7	4	2	0	1
TOTAL COUNTED ABOVE	49*	99*	123*	125*	66*	19*	9*
OTHER	25	41	67	45	27	7	2

VARIABLE DATA ON: V214 = ADDING MACHINE

....INTERVAL....	AG---E3	AG---E4	AG---E5	AG---E6	AG---E7	AG---E8	AG---E9
1	28	61	84	96	62	17	6
2	1	0	0	0	0	0	0
3	0	1	1	1	2	0	0
TOTAL COUNTED ABOVE	29*	62*	87*	97*	64*	17*	6*
OTHER	45	78	103	73	49	9	5

VARIABLE DATA ON: V216 = ELECTROWRITER TELE AUTOGRAPH

....INTERVAL....	AG---E3	AG---E4	AG---E5	AG---E6	AG---E7	AG---E8	AG---E9
1	11	21	16	16	21	3	1
2	0	0	0	0	0	0	0
3	1	0	2	0	0	0	0
TOTAL COUNTED ABOVE	12*	21*	21*	16*	21*	3*	1*
OTHER	62	119	169	154	92	23	10

VARIABLE DATA ON: V218 = TIME STAMP CLOCK

....INTERVAL....	AG---E3	AG---E4	AG---E5	AG---E6	AG---E7	AG---E8	AG---E9
1	9	13	18	12	9	0	0
2	0	0	0	0	0	0	0
3	2	1	1	0	1	0	0
....INTERVAL....	AG---E3	AG---E4	AG---E5	AG---E6	AG---E7	AG---E8	AG---E9
1	9	13	18	12	9	0	0
2	0	0	0	0	0	0	0
3	2	1	1	0	1	0	0
TOTAL COUNTED ABOVE	11*	14*	19*	12*	10*	0*	0*
OTHER	63	126	171	156	103	26	11

VARIABLE DATA ON: V220 = BURGLAR ALARM

....INTERVAL....	AG---E3	AG---E4	AG---E5	AG---E6	AG---E7	AG---E8	AG---E9
1	6	7	7	4	3	1	0
2	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0
TOTAL COUNTED ABOVE	0*	2*	7*	4*	3*	1*	0*
OTHER	74	138	183	166	110	25	11

VARIABLE SUMMARY BY PAYGRADE *WORKER CHARACTERISTICS OF THE JOB* AGALL771 VARSE2/9 PAGE

THE FOLLOWING GROUPS ARE INCLUDED IN THIS REPORT

GROUP IDENTITY = AGSPCE22	CONTAINING	3 MEMBERS.
GROUP IDENTITY = AGSPCE32	CONTAINING	74 MEMBERS.
GROUP IDENTITY = AGSPCE42	CONTAINING	140 MEMBERS.
GROUP IDENTITY = AGSPCE52	CONTAINING	190 MEMBERS.
GROUP IDENTITY = AGSPCE62	CONTAINING	170 MEMBERS.
GROUP IDENTITY = AGSPCE72	CONTAINING	113 MEMBERS.
GROUP IDENTITY = AGSPCE82	CONTAINING	26 MEMBERS.
GROUP IDENTITY = AGSPCE92	CONTAINING	11 MEMBERS.
	TOTAL	727

VARIABLE DATA ON: V050 = FINGER, HAND, WRIST, AND FOREARM STRENGTH

....INTERVAL....	AGSPCE22	AGSPCE32	AGSPCE42	AGSPCE52	AGSPCE62	AGSPCE72	AGSPCE82	AGSPCE92
1 *Below Average*	0	16	32	39	50	23	5	5
4 *Average*	2	42	85	117	93	73	18	3
5 *Above Average*	0	16	22	31	26	16	3	3
TOTAL COUNTED ABOVE	2*	74*	139*	187*	169*	112*	26*	11*
OTHER	1	0	1	3	1	1	0	0

VARIABLE DATA ON: V052 = UPPER ARM STRENGTH

....INTERVAL....	AGSPCE22	AGSPCE32	AGSPCE42	AGSPCE52	AGSPCE62	AGSPCE72	AGSPCE82	AGSPCE92
3	1	37	57	85	82	52	11	7
4	0	31	74	95	82	55	13	4
5	1	5	8	8	4	4	2	0
TOTAL COUNTED ABOVE	2*	73*	139*	188*	168*	111*	26*	11*
OTHER	1	1	1	2	2	2	0	0

VARIABLE DATA ON: V056 = LEG, FOOT AND ANKLE STRENGTH

....INTERVAL....	AGSPCE22	AGSPCE32	AGSPCE42	AGSPCE52	AGSPCE62	AGSPCE72	AGSPCE82	AGSPCE92
3	1	22	52	57	74	36	10	8
4	0	41	67	107	73	59	16	2
5	1	10	20	25	22	16	0	1
TOTAL COUNTED ABOVE	2*	73*	139*	189*	169*	111*	26*	11*
OTHER	1	1	1	1	1	2	0	0

VARIABLE DATA ON: V058 = RAPID WORK FOR A SERIES OF SHORT PERIODS

....INTERVAL....	AGSPCE22	AGSPCE32	AGSPCE42	AGSPCE52	AGSPCE62	AGSPCE72	AGSPCE82	AGSPCE92
3	0	15	22	27	35	31	7	6
4	3	38	65	83	63	36	10	3
5	0	21	51	78	70	44	9	2
TOTAL COUNTED ABOVE	3*	74*	138*	188*	168*	111*	26*	11*
OTHER	0	0	2	2	2	2	0	0

VARIABLE SUMMARY BY PAYGRADE AGALL771 VARSE2/9 PAGE

VARIABLE DATA ON: V060 = RAPID WORK FOR EXTENDED PERIODS

....INTERVAL....	AGSPCE22	AGSPCE32	AGSPCE42	AGSPCE52	AGSPCE62	AGSPCE72	AGSPCE82	AGSPCE92
3	1	39	71	88	80	64	16	10
4	1	25	45	70	69	28	9	1
5	0	10	22	31	18	18	1	0
TOTAL COUNTED ABOVE	2*	74*	138*	189*	167*	110*	26*	11*
OTHER	1	0	2	1	3	3	0	0

VARIABLE DATA ON: V062 = RAPID WORK FOR INDEFINITE PERIODS

....INTERVAL....	AGSPCE22	AGSPCE32	AGSPCE42	AGSPCE52	AGSPCE62	AGSPCE72	AGSPCE82	AGSPCE92
3	1	47	96	112	107	75	14	11
4	1	19	31	50	49	28	9	0
5	0	7	11	25	11	7	2	0
3	1	47	96	112	107	75	14	11
4	1	19	31	50	49	28	9	0
5	0	7	11	25	11	7	2	0
TOTAL COUNTED ABOVE	4*	146*	276*	374*	334*	220*	50*	22*
OTHER	1	72	136	184	164	107	24	11

VARIABLE DATA ON: V064 = HEAVY WORK FOR EXTENDED PERIODS

....INTERVAL....	AGSPCE22	AGSPCE32	AGSPCE42	AGSPCE52	AGSPCE62	AGSPCE72	AGSPCE82	AGSPCE92
3	1	53	115	148	146	99	23	10
4	1	15	18	35	22	10	3	1
5	0	5	4	5	0	2	0	0
TOTAL COUNTED ABOVE	2*	73*	137*	188*	168*	111*	26*	11*
OTHER	1	1	3	2	2	2	0	0

VARIABLE DATA ON: V066 = HEAVY WORK FOR A SERIES OF SHORT PERIODS

....INTERVAL....	AGSPCE22	AGSPCE32	AGSPCE42	AGSPCE52	AGSPCE62	AGSPCE72	AGSPCE82	AGSPCE92
3	1	40	85	107	112	83	17	9
4	1	26	45	68	43	23	6	2
5	0	8	8	13	13	5	3	0
TOTAL COUNTED ABOVE	2*	74*	138*	188*	168*	111*	26*	11*
OTHER	1	0	2	2	2	2	0	0

VARIABLE DATA ON: V068 = HEAVY WORK FOR INDEFINITE PERIODS

....INTERVAL....	AGSPCE22	AGSPCE32	AGSPCE42	AGSPCE52	AGSPCE62	AGSPCE72	AGSPCE82	AGSPCE92
3	1	55	111	152	144	98	22	10
4	1	14	21	27	21	11	3	1
5	0	4	5	8	1	2	1	0
TOTAL COUNTED ABOVE	2*	73*	137*	187*	166*	111*	26*	11*
OTHER	1	1	3	3	4	2	0	0

Attachment B

(Example of)
TRAINING PROGRAM DESIGN

(AEROGRAPHER'S MATE, AG)

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			Contact Hours	
COURSE I	(P)	AEROGRAPHER'S MATE - PREPARATORY (for Group of Ratings)	( )	3
COURSE II	(A)	AEROGRAPHER'S MATE - BASIC TECHNICAL (Job Entry)	( )	4
COURSE III		AEROGRAPHER'S MATE - CORE COURSE.	( )	4
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COURSE V	(C)	AEROGRAPHER'S MATE - ADVANCED (Particular Job).	( )	4
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1. Introduction

Naval training program design for Aerographer's Mate is used as an example to illustrate the conceptual design of a training program. A graphic presentation of this design is shown in figure 1. The following is a discussion of this design.

Purpose of Training Program Design. The purposes of a separate design of the total training program apart from its elements (a course of study or curricula) are:

a. to present a conceptual view (framework) of formal (school) training to which the elements of the program (phases, courses, curricula) are interrelated.

b. to show graphically the relationship of the program elements to the whole training program; and the interrelationships between these elements.

c. to establish a training sequence of all elements of the programs:

(1) which is conducive to effective learning

(2) that will distinguish between levels of difficulty (preparatory, basic, advanced, specialized) of training, to enlisted rating requirements.

(3) to portray to curricula planners, instructional supervisors, instructors, and learners (students) the whole system of training to which each phase, course, job, duty and task is related.

2. Basic Concepts

a. Mission of Aerography in the Navy

(Write this here)

b. Mission of Aerographer's Mate Training Program

(Write this here)

c. Scope (jobs) of Aerographer's Mate Training Program:

(List all Aerographer's Mate jobs - categorized according to appropriate course - for which AG training will be conducted and which were selected from the analysis of the NOTAP "Diagrams of Task and Time Similarity Matrixes" (Attachment Ab1).)

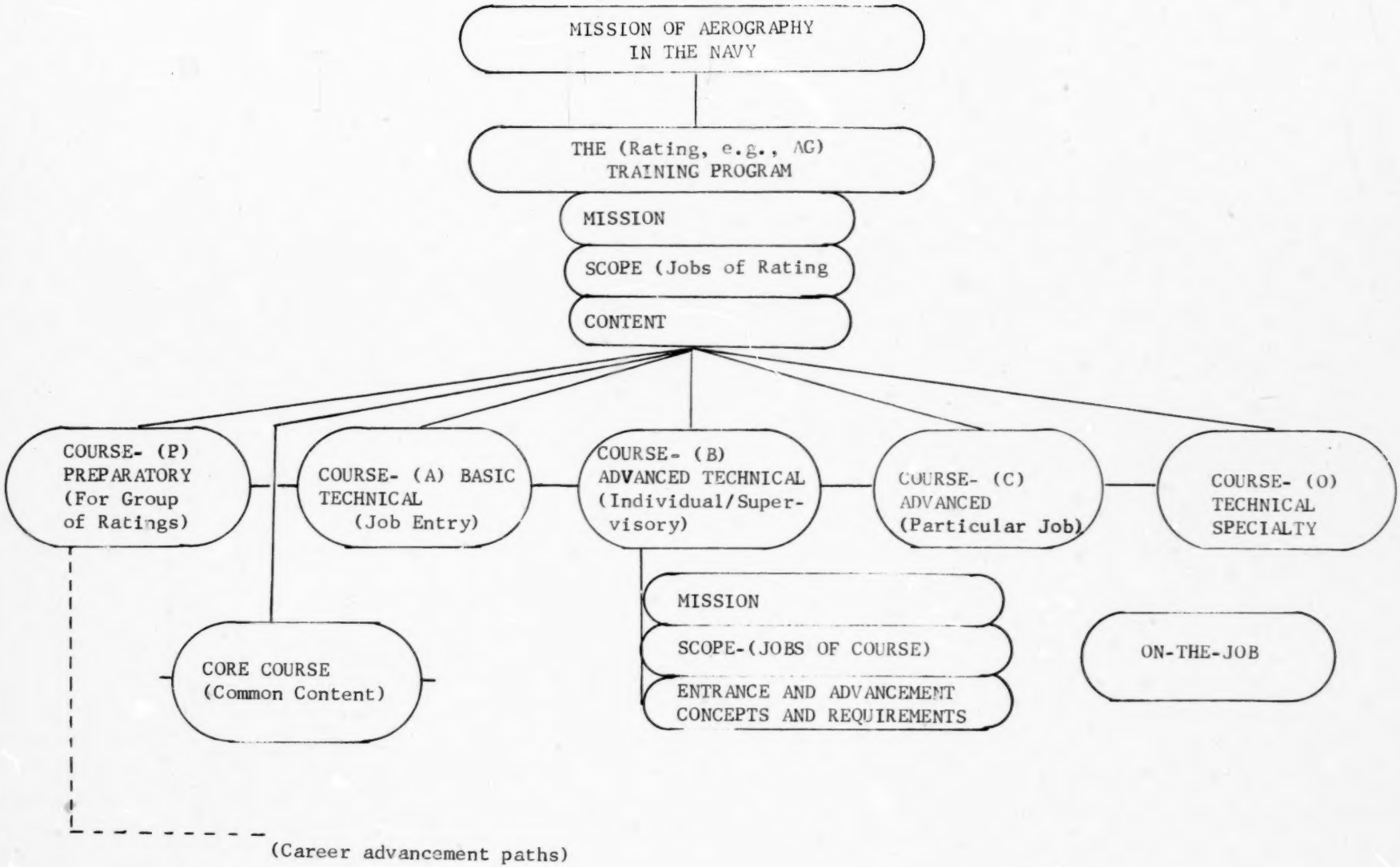

Figure 1. Graphic Design of Training Program.

3. Content of Training Program

The content of the training program consists of the conceptual framework in the form of courses/schools required for the rating. The kind and numbers of courses required for a rating will depend on the complexity of jobs and career advancement requirements of the rating. At this stage of training program design, the total course offering should show interrelationships by describing: (a) the mission; (b) scope, and (c) basic concepts for entrance and career advancement requirements for each course. These three factors for each course will then be transferred to the separate curriculum for each course.

The following elements should be included in writing the mission of a course. These elements were extracted from material of a workshop conducted by the Naval Personnel and Training Research Laboratory personnel, San Diego, California of 1972.

Deriving the course mission. "Specifying the mission (the general goal of the course) may require explicit mention of as many as five elements. These are (1) who is to be trained, to do (2) what, (3) to what degree of qualification, (4) where, and under (5) what general conditions. Which of these must be explicitly mentioned depends on the particular duty assignment. The who specifies the course entrant--Seaman, Fire Control Technician Third Class, junior naval officer, etc., from which experience requirements can be inferred, if they are not stated. Aptitude requirements must be explicitly stated. The who guides the criteria for acceptance of students; if those without full qualification are accepted, it guides the distinction between main course and remedial tasks, thus suggesting where the job analysis may stop. The what identifies the job or part of the job for which the training is to be given--CICWO, AAW evaluator, operator of electronic equipment. Hence, it tells where to start the job analysis. Degree of qualification refers to ability to perform specific job tasks at job entrance. Thus it guides the setting of the dividing point between shore and ship training. This in turn effects the length of the course. Where refers to ship type, e.g., all combatant, FRAM II type destroyer, attack carrier (CVA), specific shore locations, thus further specifying the boundaries of the course. Conditions refer to readiness conditions as well as to physical environmental conditions, e.g., extreme temperature which will effect the manner in which the job must be performed. These general conditions apply to all the learning objectives of the course. Each learning objective has its own additional conditions."

COURSE I (P) AEROGRAPHER'S MATE - PREPARATORY
(for a group of ratings)

Mission: Indicate how this is an element of the mission in par. 2b above; indicate also the training for which it is preparatory.

Scope: List AG jobs of par. 2c above which were designated for preparatory training.

Entrance and Career Advancement Basic Concepts and Requirements:
(Write concepts, requirements plans here.)

COURSE II (A) AEROGRAPHER'S MATE - BASIC TECHNICAL
(Job Entry Specialization)

Mission: Indicate how this is an element of the mission par. 2b above.

Scope. List jobs of par. 2c above which were designated for basic training.

Entrance and Career Advancement Basic Concepts and Requirements:
(Write concepts, requirements, plans here.)

COURSE III. AEROGRAPHER'S MATE - Core Course

Mission: Indicate how this is an element of the mission in par. 2b above.

Scope: List jobs of par. 2c above which were designated as jobs and tasks common (contains tasks which are common) to part or all AG training. The content of a core course is common to two or more courses. That is, it is applicable to two or more courses.

Entrance and Career Advancement Basic Concepts and Requirements:
(Write concepts, requirements, plans here.)

COURSE IV (B): AEROGRAPHER'S MATE - ADVANCED TECHNICAL
(Individual/Supervisoy)

Mission: Indicate how this is an element of the mission in par. 2b above.

Scope: List jobs of par. 2c above which were designated for advanced technical training for individual or supervisory personnel of the rating.

Entrance and Career Advancement Basic Concepts and Requirements:
(Write concepts, requirements, plans here.)

COURSE V (C) AEROGRAPHER'S MATE - ADVANCED (Particular Job)

Mission: Indicate how this course is an element of the mission in par. 2b above.

Scope: List particular jobs of par. 2c above which were designated as requiring advanced training.

Entrance and Career Advanced Basic Concepts and Requirements:
(Write concepts, requirements, plans here.)

COURSE VI (O) AEROGRAPHER'S MATE TECHNICAL SPECIALTY

Mission: Indicate how this course is an element of the mission in par. 2b above.

Scope: List jobs of par. 2c above which have been designated as technical specialty jobs of the rating.

Entrance and Career Advancement Basic Concepts and Requirements: (Write concepts, requirements, plans here.)

ON-THE-JOB TRAINING

Indicate information that may be passed on to operating commands, concerning such factors as mission, jobs and tasks which were designated for on-the-job training during the analysis of NOTAP printout data.

NOTE: The above list of courses are based on classes of schools categorized by CNTECHTRAINST 1540.2 of 13 Sep 1972 as class P, A, B, C and O schools. A rating may require some or all of these levels of training, or other training designated by cognizant commands. Six courses are listed to illustrate levels of training not to indicate that the AG rating requires six courses.

APPENDIX A

SUMMARY OF OPERATIONAL EQUIPMENT
FOR WHICH AG TRAINING IS CONDUCTED

(This equipment is selected from an analysis of the NOTAP "Equipment VARSUM" (Attachment Ah1) computer printout data. The selected equipment for which training listed numerically by computer code numbers which identify the equipment in the printouts. As an example:)

Equipment VARSUM No.	Equipment
V130	Semi Automatic Weather Station GMQ 14 Series

(Equipment appropriate for each course is then selected from this list and transferred to the appropriate course curriculum to be listed in the "Summary of Operational Equipment by course and Jobs for which Training is conducted".)

APPENDIX B

SUMMARY OF REFERENCES

(List alphabetically all references which appear in the reference list for each course. That is, consolidate all references needed for training in the rating.)

No.	Reference
1.	

Attachment C

(Example of Format for)
TASK ANALYSIS (NOTAP) BASED CURRICULUM
FOR
COURSE IV, AEROGRAPHER'S MATE - ADVANCED TECHNICAL

(NOTE: The purpose of this format is to show how the identity of valid jobs and tasks, selected by an analysis of NOTAP computer printout data, may be maintained and used in the design and development of training curricula.)

PREFACE

This publication contains the curriculum specifications for Course IV, Aerographer's Mate - Advanced Technical. The curricula for Course II, Aerographer's Mate - Basic Technical and Course III, Aerographer's Mate - Core Course, are presented in a separate publication.

REVIEWED AND APPROVED _____
(Date)

_____

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	Job 4.	
	etc.	
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	Job 1. Administrative Supervisors	4
Task No.		
A20	PREPARE LOCAL DIRECTIVES	
A7	ASSIGN PERSONNEL FOR DEPLOYMENT	
A14	ASSIGN COLLATERAL DUTIES	
A24	ASSIGN MILITARY DUTIES	
A18	APPROVE WATCH BILLS	
A11	APPROVE DISAPPROVE SPECIAL REQUESTS	
A13	NOMINATE PERSONNEL FOR SPECIAL RECOGNITION	
A16	CONDUCT REPORTING ABOARD INTERVIEWS	
A17	SUPERVISE CIVILIAN PERSONNEL	
A22	CONTROL OPERATING EXPENSES	
	Job 2. Forecasters	5
etc.		

IV. COURSE CONTENT: (Learning objectives for the following:) 6

Class Sequence	Topic No.	Duty Task	Title
			Job 1. Administrative Supervisors . . 6
1	(1)		Preparation of Local Directives 6
		A20	PREPARE LOCAL DIRECTIVES
2	(2)		Administration of Personnel Matters . . . 7
		A7	ASSIGN PERSONNEL FOR DEPLOYMENT
		A14	ASSIGN COLLATERAL DUTIES
		A24	ASSIGN MILITARY DUTIES
		A18	APPROVE WATCH BILL
		A11	APPROVE DISAPPROVE SPECIAL REQUESTS
		A13	NOMINATE PERSONNEL FOR SPECIAL RECOGNITION
3	(3)		Conduct Reporting Aboard Ship. 7
		A16	CONDUCT REPORTING ABOARD INTERVIEWS
4	(4)		Supervision of Civilian Personnel 8
		A17	SUPERVISE CIVILIAN PERSONNEL
5	(5)		Fiscal Procedures. 8
		A22	CONTROL OPERATING EXPENSES
			Job 2. Forecasters 9
6	(6)	etc.	

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I. INTRODUCTION

Mission of Aerographer's Mate Training/School

Content of Aerographer's Mate Training Program (Courses)

Course II. Aerographer's Mate - Basic Technical

*Course IV. Aerographer's Mate - Advanced Technical

etc. (List all courses for the rating.)

*Mission of Course IV. Aerographer's Mate - Advanced Technical

To provide selected Aerographer's Mates, Second Class and above with knowledges and skills required to perform the job tasks in the administration and operation of Naval Weather Service Office and for advancement in rating to AG1 and AGC.

Entrance Requirements for Course IV, Advanced Technical

Career Advancement Concepts and Requirements of Course IV, Advanced Technical

Length of Course IV: _____ Weeks = _____ Hours

Computation: _____ weeks x 35 hours per week (based on 50 minute instructional periods with 10 minutes break between periods) = _____ hours.

II. SCOPE (TASK BASED JOBS)

(Identified by NOTAP "Diagram of Task Similarity Matrix"
and
"Diagram of Time Similarity Matrix")

Job No.		Contact Hours	Pages
1.	Administrative Supervisors	____	4, 6
2.	Forecasters	____	5, 9
3.	Observers	____	—, —
4.	(List all jobs identified by NOTAP, "Diagram of Task and Time Similarity Matrixes" and selected by analysts as appropriate for Course IV.)		

NOTE: Other jobs identified are more appropriate for Course II - Basic Technical, and Course VI - Technical Specialty, such as jobs ASWEPS and Rawin/Radiosand.

III. *DUTY TASK ANALYSIS

(Job 1. Administrative Supervisor)

(Aterminal objective A selected NOTAP task

DUTY TASK A20 PREPARE LOCAL DIRECTIVES (A selected NOTAP task)

(Enabling objectives) derived from analysis of Duty Task A20 above

1.0 Prepares Navy instructions and notices

1.1 Identifies the structural content of Navy instructions and notices

1.1.1 Identifies the basic format of Navy instructions and notices

DUTY TASKS A7 ASSIGN PERSONNEL FOR DEPLOYMENT (Selected NOTAP tasks)
A14 ASSIGN COLLATERAL DUTIES
A24 ASSIGN MILITARY DUTIES
A18 APPROVE WATCH BILLS
A11 APPROVE DISAPPROVE SPECIAL REQUESTS
A13 NOMINATE PERSONNEL FOR SPECIAL RECOGNITION

1.0

etc.

DUTY TASK A16 CONDUCT REPORTING ABOARD INTERVIEWS (A selected NOTAP task)

1.0

etc.

DUTY TASK A17 SUPERVISE CIVILIAN PERSONNEL (A selected NOTAP task)

1.0

etc.

---

*NOTE: For details of how to conduct this type of analysis see Rundquist, E. A. Job Training Course Design and Improvement, Research Report SRR 71-4 Sep 1970, Naval Personnel and Training Research Laboratory, San Diego, Calif. 92152

DUTY TASK A22 CONTROL OPERATING EXPENSES (A selected NOTAP task)

1.0

etc.

(Job 2. Forecasters)

(Continue duty task analysis of all jobs listed in III - SCOPE)

IV. COURSE CONTENT

Derived from Training Course Design

COURSE IV. Aerographer's Mate - Advanced Technical

Copied from II Scope above

Job Title 1: Administrative Supervisors (10 training hours)

Derived from analysis and organization of NOTAP valid tasks	Topic:		Contact Hours
		(1) Preparation of local directives	2
		(2) Administration of personnel matters	2
		(3) Conduct reporting aboard ship	2
		(4) Supervision of civilian personnel	2
		(5) Fiscal procedures	2

Topic (1) Preparation of Local Directives

A terminal objective copied from III above

DUTY TASK: A2O PREPARE LOCAL DIRECTIVES

Enabling objective copied from III 1.1.1. above

Skill Task 1.1.1. Identifies standard format of a Naval Instruction or Notice

Learning Objective → Training Task 1: Given SECNAVINST 5215.1 (series), Directives Issuance System, type on a 8 x 10½ typing paper the format of an official notice for the local command

(This is what students are required to do.)

Standard: 100% accuracy in content and form.

Skill Task 1.1 Identifies structural content of a Naval Instruction or Notice

Learning Objective

Training Task 2: Given SECNAVINST 5215.1 (series), Directives Issuance System, write appropriate paragraphs of a local command notice that promulgates information essential to the effective operation of the local activity

Standard: 100% accuracy in satisfying the purpose of the Notice.

Skill Task
1.0 Prepare official Navy Instruction or Notice

Learning Objective

Training Task 3: Given SECNAVINST 5215.1 (series), Directives Issuance System, prepare a complete Notice typed on 8 x 10½ typing paper that promulgates information essential to the effective operation of the local activity.

Standard: 100% accuracy in format, content, and structure in writing that will clearly transmit the information intended.

Topic (2) Administration of Personnel Matters

DUTY TASKS: A7 ASSIGN PERSONNEL FOR DEPLOYMENT
A14 ASSIGN COLLATERAL DUTIES
A24 ASSIGN MILITARY DUTIES

A18 APPROVE WATCH BILLS
A11 APPROVE DISAPPROVE SPECIAL REQUESTS
A13 NOMINATE PERSONNEL FOR SPECIAL RECOGNITION

Skill Task:

Training Task 4:

Standard:

Skill Task:

Training Task:

etc.

Topic (3) Conduct reporting aboard ship

DUTY TASK: A16 CONDUCT REPORTING ABOARD INTERVIEWS

Skill Task:

Training Task:

Standard:

etc.

Topic (4) Supervision of Civilian Personnel

DUTY TASK: A17 SUPERVISE CIVILIAN PERSONNEL

Skill Task:

Training
Task -

Standard:

etc.

Topic (5) Fiscal Procedures

DUTY TASK: A22 CONTROL OPERATING EXPENSES

Skill Task:

Training
Task -

Standard:

etc.

Job Title 2: Forecasters . . . . . (_____ contact hours)

Topic: (1)
(2)
etc.

Topic (1) _____

DUTY TASK:

Skill Task:

Training
Task -

Standard:

(Thus continue writing learning objectives for all aerography jobs listed in II, SCOPE of Course IV.)

APPENDIX A

SUMMARY OF OPERATIONAL EQUIPMENT BY COURSE AND JOB
FOR WHICH TRAINING IS CONDUCTED

COURSE IV.

Job 1 Administrative Supervisors

(None)

Job 2 Forecasters

V154 Aneroid Barometer

V156 Mecurial Barometer

etc.

APPENDIX B

SUMMARY OF REFERENCE

A. FOR COURSE CONTENT

1. Secretary of the Navy, SECNAVINST 5215.1 (series), Department of the Navy Directives Issuance System, Office of Chief of Naval Operations, Records Management System (OP-09B34), Washington, D. C. 20350

B. FOR GENERAL PURPOSE

1. Rundquist, Edward A., Job Training Course Design and Improvement, Research Report SRA 71-4, Naval Personnel and Training Research Laboratory, San Diego, California: 92151, September 1970

2. Naval Air Training Command, Naval Formal Schools Catalog, CNATRA, P1550/1 (Rev. 1-7); Change 2, 1 June 1971, Section IV.

3. etc.

Addendum to Attachment C

PREPARATION OF LEARNING OBJECTIVES

Item IV, COURSE CONTENT in Attachment C shows that a learning objective consists of a skill task, a training task, and a standard.

The "Skill Task" is derived from item III,DUTY TASK ANALYSIS, and the "Duty Task" is derived from NOTAP computer printouts.

The "Training Task" is a crucial element which must be developed by the training analysts who are developing the curriculum. The "Training Task" should always state what the student is required to do in order to achieve the skill indicated by the "Skill Task" and in turn to perform the NOTAP "DUTY TASK" to which the skill task is related. If a training task is concerned with a knowledge of, or the attainment of a desired attitude; verbs such as explain, compare, illustrate, describe, define, identify, etc. must be preceded by what the student will do in order to satisfactorily explain, illustrate, describe, etc. The following three examples illustrate how this is achieved in the training task.

Training Task: Study Manual (name the manual) on the M16 rifle and identify its parts and the functions of each part by using an actual rifle. (Knowledge oriented training task)

Training Task: "Examine the eight photographs of poisonous snakes, native to Southeast Asia and identify each snake. (Mental Skill oriented training task)

Training Task: Read NAVPERS 15924 Principles and Problems of Leadership, and explain the importance of two principles of good leadership, citing at least one example from personal experience for each principle. Explanations should include the probable results of a failure to adhere to the principles identified." (Attitude oriented training task)

The following discussion of manual, knowledge, mental, and attitude oriented learning objectives was extracted from MARINE CORPS ORDER P1510.23A:

MANUAL SKILL-ORIENTED LEARNING OBJECTIVES

1. General. Learning objectives which require the application of manual procedures are relatively easy to develop, since the associated behavior, conditions, and proficiency can be readily visualized. Manual skill learner such as: "adjust," "rig," "operate," "construct."

2. Preparation. Nearly all manual skill objectives contain all three characteristics of a learning objective. The behavior characteristic

normally describes a manipulative action, and the condition characteristic is aiding, limiting or both. As a rule, manual skill-oriented learning objectives include standards which can be measured by performance tests.

KNOWLEDGE/MENTAL SKILL-ORIENTED LEARNING OBJECTIVES

1. General. This type of objective requires the learner to demonstrate proficiency in acquired knowledge, or mental skills.

a. Where the acquisition of knowledge is involved a learning objective which requires the learner to make mental associations and arrive at desired conclusions is preferable to one which measures only memory. The latter should be necessary only when the memorization is required to support a subsequent learning objective or to perform a given task. The two principal types of knowledge objectives are:

(1) Those requiring an understanding of principles or concepts--normally beginning with verbs such as "explain," "compare," "illustrate," or "distinguish."

(2) Those requiring a grasp of established facts--normally beginning with verbs such as "state," "name," "describe," or "define."

b. Learning objectives which require the application of knowledge to make a mental decision can be considered as "mental skill" or objectives. The performance of the mental task normally requires a degree of ease, speed, and accuracy. For example: solving mathematical or scientific problems; reaching management or tactical decisions; interpreting data; completing forms or reports; writing computer programs; or recognizing aircraft or combat vehicle silhouettes.

2. Preparation

a. Knowledge. In developing knowledge-oriented learning objectives, fairly explicit condition statements are normally needed. A proficiency statement, on the other hand, is not normally added since achievement of the objective usually implies 100% accuracy, and time limits are seldom imposed. Examples of knowledge-oriented objectives:

"Identify the parts of the M16 rifle, by name and function, using an actual rifle."

"State the characteristics of the atmosphere, as they affect the transmission of radio signals in the low, medium, high, very high and ultra high frequency bands."

b. Mental Skill. In most mental skill objectives; condition statements are required to pinpoint the area of desired behavior accomplishment and, where appropriate, the kinds of aids learners will be permitted to use. Statements of standards are required, and usually relate to either time or accuracy, or both. Examples:

"Add columns of numbers, each column having 6-10 numbers of 5 digits or less. Time limit: 10 minutes for five problems."

ATTITUDE-ORIENTED LEARNING OBJECTIVES

1. General. Attitude involves behavior which has emotional overtones, i.e., likes, dislikes, values, beliefs, and viewpoints. Attitudes can be formed or changed in a learning situation, but attainment of a desired attitude is extremely difficult to measure. Oral and written tests may provide the "school solution," but they may not reveal the student's true manner of acting, feeling, or thinking--his true attitude. Attitudes and their related learning objectives can vary through the spectrum from simple awareness of a subject or problem area, through interest, to attitude change, and total indication to the desired attitude or behavior.

2. Preparation

a. Attitude-oriented learning objectives are constructed in much the same manner as knowledge-oriented objectives. The behavior characteristic should relate to activities which reveal attitudes, i.e., complying, following, cooperating. Objectives can begin with such comprehension-revealing verbs as "explain," "describe," "demonstrate (understanding)."

(1) The condition statement normally limits the behavior area for which the trainees will be held responsible. Additionally, the condition characteristic can specify a role-playing situation in which to demonstrate the desired attitudes. As with the knowledge-oriented learning objective, the proficiency characteristic is rarely used.

(2) Some samples of attitude-oriented learning objectives:

"Explain the importance of two principles of good leadership, citing at least one example from personal experience for each principle. Explanations should include the probable results of a failure to adhere to the principles identified."

"Demonstrate an understanding of the Code of Conduct, by explaining why obedience to the Code is mandatory, and by acting the part of a POW interrogated by the instructor in a role-playing exercise."

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13. ABSTRACT

This investigation is concerned with the interpretation of Navy Occupational Task Analysis Program (NOTAP) computer printout data in terms of its use in the design and development of Navy training programs, courses, and curricula.

The study interprets NOTAP data and shows how it may be used most effectively in the design and development of training programs to insure that the policy of the Chief of Naval Training is implemented. Namely, "that all Navy training be based upon a thorough and meticulous analysis of the duties and tasks to be performed by the trainee, to the end that all Navy training is job-relevant".

Examples of a training program design and a format for a job/task analysis based curriculum is presented to illustrate how to specifically use NOTAP data for this purpose.

Recommendations are made that the procedures presented in the report be field tested and refined as standard procedures for the design and development of Navy training programs based upon NOTAP.

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14. KEY WORDS	LINK A		LINK B		LINK C	
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Task Analysis						
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Training Program Design						
Curricula Design and Development						
Job/Task Based Training Program/Courses/Curricula						